POPPIES OR PEACE: THE RELATIONSHIP BETWEEN OPIUM PRODUCTION AND CONFLICT

A thesis presented to the Faculty of the U.S. Army Command and General Staff College in partial fulfillment of the requirements for the degree

MASTER OF MILITARY ART AND SCIENCE
Genocide and Mass Atrocities

by

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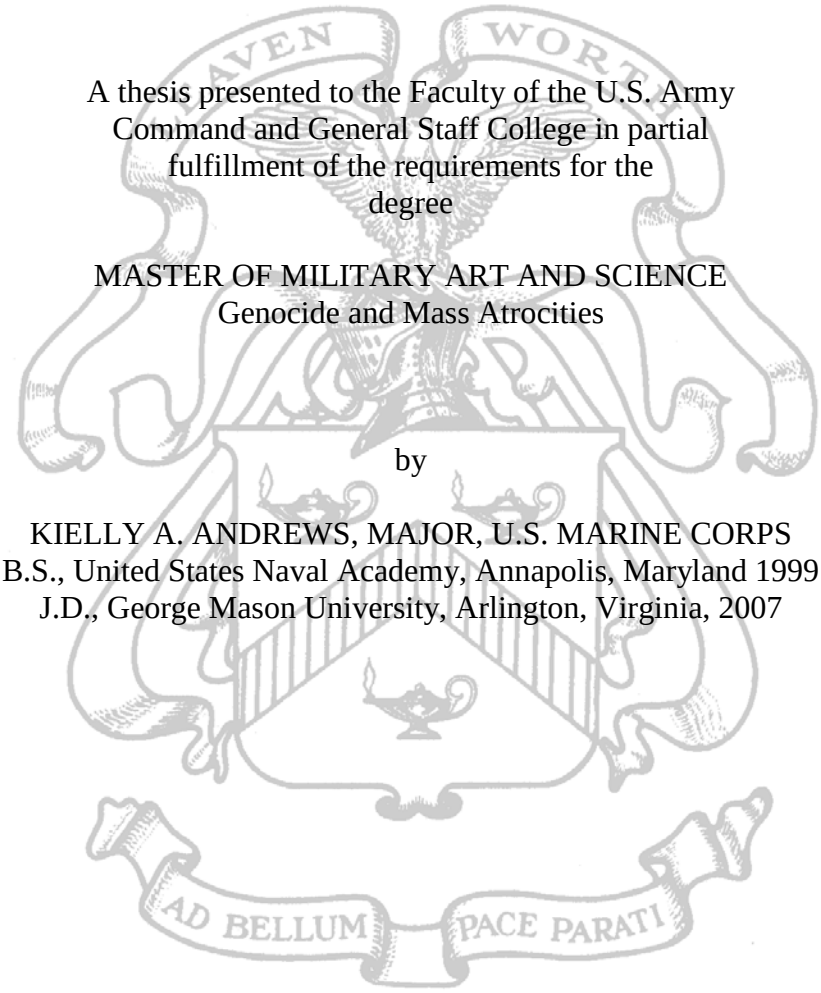

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Presidential Study Directive-10 directed executive agencies to improve efforts in preventing human atrocities. Conflict analysis has identified that internal conflict has significant adverse impacts on civilian populations. Apart from increased casualties arising out of collateral damage, civilian populations also suffer loss of income, destruction of property and food stores, internal displacement, and even involuntary conscription and forced labor. Reducing internal conflict is part of conflict prevention.

Research into economic theories of conflict analysis has examined the role of primary export commodities as they relate to increases in internal conflict. As part of this area of research, this thesis examines whether illicit raw opium production, as a primary export commodity, appears to have a similar fuction with respect to conflict. Analyzing data on changes in raw opium production, in the context of the national economy, and comparing information to changes in internal armed conflict suggests that increased illicit opium production relates to increases in internal conflict. This apparent association implies that atrocity prevention may benefit from incorporating opium crop monitoring and eradication into planning efforts.

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The opinions and conclusions expressed herein are those of the student author and do not necessarily represent the views of the U.S. Army Command and General Staff College or any other governmental agency. (References to this study should include the foregoing statement.)

ABSTRACT

POPPIES OR PEACE: THE RELATIONSHIP BETWEEN OPIUM PRODUCTION AND CONFLICT, by Major Kielly A. Andrews, 137 pages.

Presidential Study Directive-10 directed executive agencies to improve efforts in preventing human atrocities. Conflict analysis has identified that internal conflict has significant adverse impacts on civilian populations. Apart from increased casualties arising out of collateral damage, civilian populations also suffer loss of income, destruction of property and food stores, internal displacement, and even involuntary conscription and forced labor. Reducing internal conflict is part of conflict prevention.

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ACRONYMS

FARC	Revolutionary Armed Forces of Colombia
GDP	Gross Domestic Product
ICC	International Criminal Court
INSCR	International Narcotics Control Strategy Report
PSD	Presidential Study Directive
R2P	Responsibility to Protect
SLORC	State Law and Order Restoration Council
SIPRI	Stockholm International Peace Research Institute
SPDC	State Peace and Development Council
UCDP	Uppsala Conflict Data Program
UN	United Nations
UNODC	United Nations Office on Drugs and Crime
UNSD	United Nations Statistical Division
U.S.	United States

ILLUSTRATIONS

CHAPTER 1

INTRODUCTION

Research Question

> Predictions of the future are never anything but projections of present automatic processes and procedures, that is, of occurrences that are likely to come to pass if men do not act.
>
> — Hannah Arendt, *On Violence*

The international community rightly condemns mass atrocities. Internal armed conflict contributes to the likelihood of mass atrocities. Along this same line, the pervasiveness of an illegal drug economy increases the risk of internal conflict. Therefore, preventing mass atrocities means understanding how and why economic factors like opium cultivation contribute to internal conflict.

Prediction is the heart of prevention. Early recognition of developing atrocities increases the time available to plan for and execute a preventative response before the situation escalates. Without better methods to predict mass atrocities, prevention efforts will continue to lag behind the unfolding atrocities and will continue to cost more in money and human lives. Understanding how and why atrocities develop sets the stage for timely and reliable prediction *and* prevention. Research to identify and interpret individual predictors will improve the field of prevention of mass atrocities. Presidential Directive on Mass Atrocities, Presidential Studies Directive (PSD-10)[1] recognizes the contribution of this field of research to the nation's expanding efforts at atrocity prevention. In the future, dependable criteria will drive the intelligence requirements that military planners and analysts need to predict trends toward a developing atrocity.[2]

To assist in refining atrocity prediction, this thesis seeks to demonstrate that the illicit opiate trade provides useful data in predicting future atrocities. Specifically, the primary research question asks: If a nation's Gross Domestic Product (GDP) reflects an increase in illicit opium trade, does this data demonstrate an increased likelihood of internal armed conflict? To effectively interpret the results of the primary research question, the secondary research questions focus on: (1) isolating the cause of any variance in results, and (2) explaining the qualitative relevance of these results to conflict prediction and atrocity prevention.

First, internal armed conflict may not increase as a result of opium-derived GDP growth *unless* opium trade contributes to a certain percentage of overall GDP. Assuming this possibility: must the opium trade equal a minimum percent of GDP before internal conflict increases? Second, perhaps internal armed conflict only increases when opium-derived GDP increases under the influence of a particular type of government. With this concern in mind, this research will examine variance in results as it relates to the form of governance in a given nation. Specifically, does the impact of opium production vary under different regimes, depending on the nation's classification as a democracy, autocracy, or anocracy (i.e., mixed authority)?

In summary, the primary and secondary research questions seek to answer whether opium's value as an atrocity predictor requires certain economic or political conditions. As such, they focus quantitatively on whether government involvement in internal conflict occurred when opium trade contributed to a certain percentage range of the state's GDP. To provide meaningful context to the primary question, this research will conclude with a qualitative analysis of several nations to which the results apply. To

address recommendations for future research, the concluding analysis will briefly review the internal conditions within the state which may contribute to the relevance of the findings, including stability and minority risk assessments of theses states.

Background

Conflict Analysis Theory

Conflict analysis studies strive to identify causation patters in armed conflict. Conflict analysis theory breaks down into several subcategories based on the specific causal factors it seeks to understand. Broadly conceptualized, these categories cover identity, economic factors and natural resources, governance and stability, and territory. Studies in these subcategories focus on observable changes in conflict based on one or more subcategory variables.[3]

Since the end of World War II, internal armed conflict has occurred more frequently than conventional armed conflict between the forces of central governments.[4] These internal armed conflicts tend to linger without resolution and impact a wide reaching body of the civilian population. Even with battle related deaths as low as twenty-five casualties per year, the number of civilians affected by abuse, forced labor, displacement, and lost livelihoods, frequently exceeds tens of thousands.[5] Because of terrain features and settlement patterns, internal conflict, whether intended or not, has a disproportionate impact on identifiable societal groups. Doubly significant, this negative impact undermines traditional social support networks, further disperses the diasporas and increases global instability.

Opium Trade

This thesis will use the framework of conflict analysis theory to examine how opium functions in increasing atrocities by fueling internal armed conflict. Opium, as a natural resource, spurs economic competition. It sustains impoverished rural farmers.[6] It funds civil conflict. Three out of five of the longest ongoing internal conflicts persist in nations that produce and export illicit opiates.[7] The analysis will examine how closely associated poppy growth for opium trade relates to changes in internal conflict in these nations.

Assumptions

Availability of Information

The databases and information accessed in researching this topic will come from sources generally purported as reliable. This thesis will assume that these sources provide sufficiently detailed and accurate data for testing this hypothesis and replicating this research. Chapter 3, Research Methodology, will address the reliability and methods of specific data sources in further detail.

Relationship between Opium Trade, Internal Armed Conflict, and Atrocities

Even relatively minor instances of internal armed conflict can have a substantial and devastating impact on civilian populations.[8] "Research to date suggests that natural resource wealth is important in explaining the incidence and duration of civil conflicts."[9] Given the unique agricultural characteristics of opium poppies, land suitable for poppy cultivation provides a natural resource that produces a high value-to-weight ratio cash

crop.[10] Therefore, this research will assume that opium trade contributes to the likelihood of mass atrocities based on an export commodity-based conflict analysis theory.

Relationship between GDP and Black-Market Opium Trade

GDP represents a measure of the economic health of a nation, but "since GDP is a measure of output in an economy, it does not include . . . black market exchanges."[11] As a general rule, data on GDP does not include a strict or official fiscal accounting of economic growth that results from illicit opium trade. However, where an observable change in illicit trade income occurs (based on non-GDP calculations), a national economy should reflect an associated change in GDP. This research will not account for the probable effect of independent variables of other illicit trade practices. As a result, opium trade will have to comprise a substantial percentage of overall GDP growth for statistically significant observations. Therefore, this research will assume that only the leading world opium suppliers have a large enough opium economy for statistical significance, most likely where the ratio of opium to the total GDP exceeds at least five percent. Regardless, when the results provide an observable impact in GDP, this research will assume that the impact has resulted from the effect of trickle-down economics within the national economy.

Market Economics Apply

Market economics follows certain basic principles. This research will assume that these principles apply to the behavior and outcomes it assesses.[12] Specifically, the essential rules of supply and demand apply to the opium trade for both legal (licensed) and illegal (unlicensed or in-excess of license) opium. First, restrictions on trade do not

decrease demand. Illegal (black market) trade ultimately seeks to supply existing demand. Second, black market trade generally results in an even higher profit margin than the same commodity would in a legitimate market. Finally, profits from illegal trade eventually flow back into the economy through legitimate spending practices.[13]

Because of the addictive nature of opiates, the demand for opium has remained relatively inelastic over time.[14] Therefore, the illicit opium trade provides a reliable and profitable source of revenue to those who do, or seek to, control or regulate it. A revenue beneficiary will act according to market economics principles. Whoever has access to revenue from opium will not act so as to forego the resulting profit except in the absence of a greater economic benefit elsewhere or except where the continued receipt of profits from illegal opium has adverse economic consequences which outweigh the benefits.[15] This research will assume that, as a rational actor, a government will take economic principles into account when it takes action to control opium production and trade.[16]

Likewise, the basic principles of market economics apply to government action with respect to illegal opium trade. A government may take action to eradicate opium crops or seize supply prior to exportation. This action, however, does not allow the de facto assumption that the government intended for its eradication efforts to actually prevent the trade of illegal opium. With an inelastic demand, the net economic effect of limiting the available market supply–as with eradication or seizure–increases the overall value of the existing opium supply.[17]

Furthermore, eliminating supply from one supply point does not eliminate demand. Rather, it spurs other potential suppliers–in this case, other opium producing regions–to join the market or, if already in the market, to increase their production.[18] This

research will assume that shifts among the world's leading opium producers have proceeded according to principles of market economics and that suppliers have acted filled voids when able.

Eradication Does Not Equal Intent

Global opinion commonly condemns both human rights abuses and illegal economic practices. United Nations' (UN) policy and regulations result in formal censure or, worse, economically damaging economic trade sanctions. Even without UN involvement, other nations may act unilaterally or in coalition against nations suspected of crimes against humanity or of involvement in illegal trade practices. As a result, governments that participate in these activities or that fail to adequately suppress illicit trade or human rights violations, whether by choice or by inability, will attempt to suppress information regarding these activities.[19]

Some nations' eradication of illicit opium has the practical effect of increasing internal armed conflict or of bringing about mass civilian casualties, gross internal displacement and refugee populations, along with other humanitarian atrocities. In such cases, data alone will not reveal the government's true motivations or the total extent of the damage to civilian populations. Any available data will have inherent limitations. Therefore, the most concerning limitation is the requirement to interpret the trends in the available data to extrapolate truly meaningful conclusions.

Definitions

Genocide refers to the systematic and deliberate destruction of a group of people. The United Nations Convention on Prevention and Punishment of the Crime of Genocide specifically defines genocide as:

> any of the following acts committed with intent to destroy, in whole or in part, a national, ethnical, racial or religious group, by:
> (a) Killing members of the group;
> (b) Causing serious bodily or mental harm to members of the group;
> (c) Deliberately inflicting on the group conditions of life calculated to bring about its physical destruction in whole or in part;
> (d) Imposing measures intended to prevent births within the group; or
> (e) Forcibly transferring children of the group to another group.[20]

Furthermore, the Convention does not require direct government action. The crime may also occur through indirect encouragement or incitement of third parties, through conspiracy, or through complicity.

Mass Atrocities, also referred to simply as atrocities, go beyond the narrow definition of genocide into a wider spectrum of crimes against humanity perpetrated deliberately through persecution, human suffering and large scale loss of civilian lives. The Rome Statute of the International Criminal Court (ICC) defines "crimes against humanity" as acts knowingly committed as part of a widespread or systematic attack directed against multiple members of any civilian population, particularly "when committed as part of a plan or policy or as part of a large-scale commission of such crimes."[21] The ICC definition includes murder, extermination, enslavement, deportation, forcible transfer of population, imprisonment, torture, rape and sexual violence. For purposes of this research, a mass atrocity includes any crime against humanity that impacts three or more non-combatant citizens, to include internal or cross-border displacement that results from a scorched earth policy.[22]

Human rights abuses, while closely associated, is not synonymous with crimes against humanity as defined by the Rome Statute. Both terms may result in the culmination of a human rights crisis; however, human rights abuses extend more broadly to additional acts of victimization which result from deliberate or reckless endangerment. The legal framework of enumerated crimes against humanity may not necessarily encompass the broader notion of human rights abuses. The term "endangerment" applies to knowing government complicity in subhuman labor conditions, in the deliberate destruction of civilians' livelihood, in forced labor in war zones and areas of direct and ongoing conflict–for example, conscription, porterage, human shields, or the use of civilians in clearing mine fields–and in the knowing spread of addiction and disease.

Government Action, as used in this research, broadly pertains to any type of action that a government takes with respect to its ability to influence or control the opium trade or the people involved in it. Government action may not intend to bring about human suffering and death but may, nonetheless, have this impact. It may include, but is not limited to: eradication of crops; seizure of raw opium or opiate products; forcible displacement of opium farmers from their lands, whether by direct government or indirectly by entities whose actions the government has sanctioned; and financial or political agreements, associations or dealings with opium producers, refiners or traffickers. This term, as defined, allows for four intent-impact categories of government action: [23] (1) well-intended actions that do not result in an atrocity or human rights abuses; (2) well-intended actions that result in human rights abuses or, at a minimum, humanitarian crises;[24] (3) mal-intended actions that do not result in an atrocity or human rights abuses;[25] (4) mal-intended actions that result in genocide, mass atrocities, or

human rights abuses. Additionally, a government may not act. Deliberate inaction still falls within one of the above intent-impact categories. Inaction resulting from complacency, ignorance or lack of awareness does not; it simply indicates poor governance.

Internal Armed Conflict refers to any contested conflict between the armed forces of a central state government and at least one other armed force ("state-involved internal conflict"), or between two armed forces within a state ("non-state internal conflict"), which results in at least twenty-five battle-related deaths in a calendar year. Battle-related deaths include civilian collateral damage as a result of traditional or conventional warfare, guerilla warfare, or bombardment.[26] As applied to the data in this thesis, this term does not include interstate conflict between the armed forces of two central governments, nor does it include extra-state conflict or cross-border incursions.

One-Sided Conflict refers to any act perpetrated through armed force against civilians which results in at least twenty-five or more casualties in a particular conflict incident. Either a central state government or a non-state armed actor may perpetrate a one-sided conflict.

Gross Domestic Product (GDP), as defined by the World Bank, "is the sum of gross value added by all resident producers in the economy plus any product taxes and minus any subsidies not included in the value of the products. . . . Data are in current U.S. dollars. Dollar figures for GDP are converted from domestic currencies using single year official exchange rates."[27]

More simply stated, GDP accounts for the economic market value of all goods and services produced in a nation within a given period of time. This term applies only to

goods which a nation officially acknowledges as part of its GDP. Other unofficial goods and services may comprise a small, or even significant, portion of the true market value of goods produced in a particular nation, although not calculated in the officially recognized GDP. The term GDP does not include the market value of unofficial goods and services; however, the nation's GDP provides a reference point for their relative value and helps in establishing the value of unofficial goods within an economy.

Ungoverned Spaces concerns land regions within a nation's delineated or claimed borders which do not fall under the traditional control or protection of a recognized national government. Although ungoverned spaces generally indicate state weakness, this term does not necessarily imply a lack of government awareness or involvement in the situation in these spaces. The primary regulatory influence may come from private industry or may be a public-private hybrid, such as when governments bargain with warlords.[28]

Opium Trade refers primarily to farm cultivation of poppies for the collection of opium. Although opium trade may also includes the refining of natural and partially synthetic opiate products (such as heroin and morphine), and sales within the national economy and exports, its use for data and analysis in this thesis focuses on raw opium products that result from cultivation. "Trade" conceptually accounts for both the volume and the market value. Production refers specifically to the growth of the opium poppy on available farm lands. "Trade" does not include the buying and selling of, or income from, opium or opiates that results from import (vice export) goods, nor does it encompass the net economic effects of those transactions or of transforming the raw commodity into synthetic or partially synthetic products.

Type of Governance refers to the patterns of authority exhibited by a centralized national government or political regime. The patterns of authority fall into three regime categories: autocracy, anocracy or democracy.[29] An anocracy has mixed patterns of authority, with some characteristics of a full democracy but some characteristics of a full autocracy. Some theorists refer to anocracy as an incoherent system of governance.[30] These regime categories come from a system of Polity Scores originally developed for a wider assessment of government authority conducted by the Polity IV Project.[31]

Scope

This thesis will analyze the role that a high-value, illicit global commodity plays in contributing to internal armed conflict and, therefore, mass atrocities. In limiting the illicit commodity variable to opium, this research will seeks to demonstrate the highly predictive value of the threat that opium production poses in conflict indicators for atrocity prevention. The additional boundaries of the data and analysis will focus on: (1) identifying leading global opium producers, (2) quantifying the incidence of internal armed conflict, and (3) examining the impact of governance on the results of the hypothesis. Therefore, this thesis will only collect data for nations identified as major opium cultivators and exporters by the United Nations' World Drug Reports and Global Illicit Drug Trends.[32] The availability of historical information on opium trade across all referenced databases will establish the outer limits of the time period for the study. This data will provide the information necessary to properly analyze the research hypothesis from an informed position and, together with the context of an in-depth case study of the results, as applied to Burma, synthesize it into broader policy recommendations.

Limitations

The primary limitations in researching this question will stem from the availability of official data, due to the secretive nature of illicit trade and crimes against humanity. Direct involvement in the criminal underworld of the opium trade would provide access to the most accurate and reliable economic data in researching this thesis. Direct involvement with the government's military forces for subject nations would yield the most reliable primary-source information on the civilian human rights implications of opium-related armed conflict. The obvious difficulties associated with either type of involvement will limit this study.

Of note, several additional gaps will create minor limitations. The unclassified nature of this study will limit it to open source documentation. Historical records will limit the availability of reliable data prior to certain time periods. These limitations should have a minimal impact on the study's efficacy. This thesis will realistically evaluate the probable significance of the opium trade as a variable in predicting an atrocity. However, the narrow scope of the research design will inherently limit the ability to address why this phenomenon occurs. Ultimately, this limitation should only impact the ability to make policy recommendations from the results; the research itself should still accomplish its goal of identifying a useful predictor of a potential atrocity.

Delimitations

In choosing to limit the scope of this study to the opium economy, as opposed to other black market trade resources, this thesis will examine the conflict-atrocity impact of a good with both an exceedingly inelastic market demand and a history driven by ethnocentric and territorial implications.[33] This study will not examine the relationship of

opium and GDP in states through which opium transits but is not grown, because opium crops do not constitute a primary export commodity tied to a natural resource in those economies. The same distinction will apply to states with a large opium economy as a result of sales from opium imports.[34]

Arguably, state inaction in regard to widespread addiction itself amounts to an atrocity. For example, ethnic minorities working in Burmese mines have a heroin addiction rate as high as sixty percent and, among those addicts, the prevalence of Human Immunodeficiency Virus infection exceeds ninety percent.[35] Although opium addiction has an undeniably adverse impact on civilian populations, this thesis will not include data related to opium use or its impact. Subsequent research should take note of the implications and significance of this delimitation.

Aside from cost constraints, given the political and security environments in the primary opium growing and exporting regions of the world, this study will not conduct any personal travel to those areas nor will it involve direct, personal interviews of people living in those regions. Furthermore, this thesis will study only the production time-frame contained within reasonably available drug data records of international organizations such as the UN. Finally, although terrain data appears relevant, this thesis will not test it as a variable.

Military Significance

> Government engagement on atrocities and genocide often arrives too late, when opportunities for prevention or low-cost, low-risk action have been missed. By the time these issues have commanded the attention of our senior policy makers, the menu of options has shrunk considerably and the costs of action have risen.[36]

On November 13, 2007, the United States Institute of Peace, the American Academy of Diplomacy and the United States Holocaust Memorial Museum convened the Genocide Prevention Task force as a joint effort. The Task Force aimed "to spotlight genocide as a national priority; and, to develop practical policy recommendations to enhance the capacity of the U.S. government to respond to emerging threats of genocide and mass atrocities."[37] In the summary of recommendations, the Report of the Genocide Prevention Task Force repeatedly highlighted the importance of using intelligence resources as a predictive tool to provide early warning for the prevention of mass atrocities. Specifically, it identified that "The director of national intelligence and the secretary of defense should leverage military capacities for intelligence and early warning and strengthen links to political-military planning and decision making."[38]

In keeping with the findings of the Task Force, PSD-10 charges the national security apparatus of the United States to ensure that it possesses the ability to recognize "and is responsive to early indicators of potential atrocities."[39] The Presidential Directive reiterates the importance of identifying early warning signs as a necessary step towards timely prevention efforts. Likewise, the United Nations Special Advisor on the Prevention of Genocide has stated that the critical step in genocide prevention "is to identify the factors in a given situation that lead to/account for acute disparities in the administration of a diverse population." [40]

This research topic will support the intent of PSD-10 by pursuing the critical step of identifying how intelligence on the opium trade factors into predicting an atrocity. Hopefully, these findings will contribute to the larger body of research used to establish "early indicator" criteria for intelligence analysts. If the research hypothesis is true, then

measurable changes in opium income have significance in atrocity prevention planning. If not, then the Department of Defense and other national security agencies can focus their attention and coordination efforts elsewhere and leave concern over changes in opium production to narcotics control agencies.

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[1]President Barack Obama, *Presidential Directive on Mass Atrocities, Presidential Study Directive-10* (PSD-10) (The White House, August 2011).

[2]In his 2003 review of recent genocide publications, Howard Adelman identifies problems in identifying a concise theory of mass atrocities. He prefers the idea of deep historical study over a simplified theory based on fixed elements. He claims any formulaic explanation of the causes of mass atrocities is suspect, but admits that they occur from "some combination of the following . . . depictions of the Other . . . efforts . . . to destroy its reproductive capacity; authoritarian leadership . . . economic downturn; revolutionary ideology; and the cover of war." Either way, a formulaic explanation for the causes of mass murder has value. The presence of distinct factors indicates that predictive indicators can signal developing atrocities. Howard Adelman, "The History and Theory of Genocide," in *The International History Review*, 2004.

[3]Discussed in further detail in Chapter 2. Note, basis for grievance often ties in to economic disparity.

[4]The number of global civil conflicts peaked in 1992 and, from that time until 2008, declined. Until this peak, the greatest percentage of impacted nations were in Asia and the Middle-East. Magnus Öberg and Kaare Strøm, eds., *Resources, Governance and Civil Conflict* (London: Routledge, 2008), 4, 26-27. Notably, these dates align with two of the most drastic shifts in Afghanistan's opium production. In the early 1990s, Afghanistan surpassed Burma as the leading world supplier and has continued in this position since. However, the massive eradication campaigns and reforms from 2007-2009 resulted in reducing Afghanistan's percentage of global supply dramatically by 2010. Meanwhile, although Burma's production remains low compared to the 1980s and 1990s, it has increased again in recent years. See note 12, Chapter 1, for additional information.

[5]Ibid., 4. Note that the authors specifically reference the ongoing Karen insurgency in Burma and civil conflict in Colombia; both regions have significant opium production.

[6]Discussed in further detail in Chapter 2.

[7]The longest running of these is the Karen insurgency in Burma, which began in 1948.

[8]Strøm and Öberg, *Resources, Governance and Civil Conflict,* 3-5.

[9]Ibid., 7.

[10]Martin Booth, *Opium: A History* (London: Simon and Schuster Ltd., 1996), 2-3. The opium poppy requires a temperate climate with sufficient, but not excessive rainfall or humidity. More importantly, due to photosensitivity, the plant will not produce blooms unless it has grown through long days and short nights.

[11]Davis Folsom, *Encyclopedia of American Business* (New York: Facts on File, Inc., 2004), 225.

[12]In spite of wide-spread acknowledgement that Burma's national economy has suffered from decades of ineffective national economic policies under several dictators (all of whom rose to power under claims of economic reform), the Burmese attempt at creating an isolationist welfare-state does not negate the basic premise that the leaders of national governments or their economic advisers should presumably have a basic understanding of the underlying principles of supply and demand. Even uneducated peasant farmers understand that they can ask more for their rice when food is scarce. This assumption, however, does not go so far as to imply that all national leaders understand more complex concepts of economics involving matters of monopolization, currency devaluation and inflation.

[13]LaMond Tullis, *Unintended Consequences* (Boulder, CO: Lynne Rienner Publishers, Inc., 1995), 92. Drug traffickers exhibit "conspicuous consumption" of luxury goods within the economy. As a result, they also conduct legitimate business in the economy to both legitimize the source of their wealth and increase it. For example, in *People of the Opiate*, Bernstein and Kean point out the influx of capital into travel lodges and tourism-related businesses that followed after the ceasefires in Burma. Dennis Bernstein and Leslie Kean, "The People of the Opiate," *The Nation* 263, no. 20 (December 1996): 11-15.

[14]Note, this pattern holds true except during the period of time from the Great Depression through World War II, when the opiate users, collectively across the global economy, did not have sufficient funds to maintain the typical demand pattern that has been consistent since the late 1800s. Following the wide-spread proliferation of the global opium market in the post-Opium War era, that period comprised the only observed downward trend in production/exports. Booth, *Opium: A History*; Siddharth Chandra, "Economic Histories of Opium," *Economic History Encyclopedia* (Economic History Association, 2008), http://eh.net/encyclopedia/article/chandra.opium (accessed June 1, 2012).

[15]This behavior explains that governments do or do not take action with respect to opium trade, but does not necessarily explain why they choose certain types of action over others. This assumption is necessary to later analyze the type of action taken, or the "why" behind a specific type of government choosing one type of action over another.

[16]For example, a government may take action–even violent action–to suppress the opium trade if it has identified that opium poses a threat to other greater national interests. A deleterious impact on the workforce may cause sufficient economic concern to spark government action.

[17]Evidence indicates the Taliban has done exactly as described–professing to eradicate opium with an underlying intent to drive up market value of existing stockpiles. Robert Draper, "Opium Wars," *National Geographic*, February 2011. Bernstein and Kean also describe the supplemental extralegal government income in Burma. A close inspection of Burma's spending, investing and banking records reveals wide disparities. During the 1990s, at the time the ruling Burmese military junta began signing cease fires with several insurgent groups known for their involvement in opium trade, Burma's annual spending significantly exceeded its reported income, investments, and financing. Bernstein and Kean, "People of the Opiate." Reports out of the United State's embassy in Rangoon provide additional details on the economic situation in Burma. These reports repeatedly refer to the junta's inadequate anti-narcotics efforts and to discrepancies in national finance records and reports. United States Embassy Rangoon, *Country Report on Economic and Trade Practices/Commercial Guide*, 1996.

[18]For example, from 2009 to 2010, Afghanistan's contribution to global opium production fell by 14 percent. Meanwhile, although from 2007 and 2009, the area of opium cultivation in Burma fell by 21 percent, it has since risen to 195,700 hectares–and Burma's share of global production has more than doubled from 5 percent in 2007 to 12 percent as of 2010. Although not a 1:1 ratio, Burma's suppliers have clearly increased their production to fill the void left by Afghanistan's reduction policies. United Nations, World Drug Report 2011, United Nations Office On Drugs and Crime, 2011, 83-84.

[19]A comparison of Burmese self-evaluations and economic reports against records from the World Bank, the International Monetary Fund, and from United States Embassy evaluations demonstrates the difficulties in reconciling an individual nation's self-reports against the observations of various international organizations and external government agencies. United States Embassy Rangoon, *Country Report on Economic and Trade Practices*; Bernstein and Kean, "People of the Opiate."

[20]United Nations, Article 2: *United Nations Convention on the Prevention and Punishment of the Crime of Genocide* (New York: United Nations General Assembly, December 1948). The ICC definition conceptually requires the presence of intent or design in the commission of the offense, as opposed to simple indifference or the inability of a government to effectively prevent the atrocities. This conceptual limitation relates back to traditional notions of sovereignty under international law and has implications in addressing policy concerns with respect to the doctrine of Responsibility to Protect.

[21]United Nations, *Rome Statute of the International Criminal Court (last amended January 2002)* (New York: United Nations General Assembly, July 17, 1998).

[22]International law prohibits using the policy of scorched earth, which treats the civilian population and its resources like a strategic enemy resource in a military conflict. Article 54 prohibits destruction, removal, spoiling or denial of the civilian population's food stores and source of food supply, including destruction of crops, livestock, agricultural supplies, agricultural areas. United Nations, Article 54: *Protocol Additional to the Geneva Conventions of 12 August 1949, and relating to the Protection of Victims of International Armed Conflicts (Protocol I)* (New York: United Nations General Assembly, June 8, 1977).

[23]Certainly, profiting from narcotics exports has an adverse impact on the end-user; however, this study assesses impact solely as it relates to the internal population.

[24]For example, if the government eradicates opium crops without the unnecessary use of force and without intentionally displacing farmers, but does nothing to assist in replacing the lost crops and income such that the farmers starve or migrate in search of food.

[25]For example, if the government eradicates opium crops without the unnecessary use of force and also provides farmers with an alternative, legal subsistence crop, such that the individual farmers do not suffer displacement or adverse impacts from the eradication, even though the government knows that it will profit from the increased market price that results from a reduced supply.

[26]UCDP, *Definitions* (Uppsala: Department of Peace and Conflict Research,Uppsala Universitet, 2012).

[27]The World Bank also states: "For a few countries where the official exchange rate does not reflect the rate effectively applied to actual foreign exchange transactions, an alternative conversion factor is used." This alternative conversion applies to Burma, which artificially inflates its official exchange rate for any currency conversions which take place within its borders. GDP (current US$), in World Bank, "Data," World Development Indicators, http://www.worldbank.org/depweb/english/beyond/global/glossary.html (accessed June 1, 2012).

[28]Anne Clunan and Harold Trinkunas, *Ungoverned Spaces: Alternatives to State Authority in an Era of Softened Sovereignty* (Stanford: Stanford University Press, 2010).

[29]Recognizing, however, that regimes at any level of democracy may still have varying degrees of corruption, state weakness, ungoverned spaces and instability.

[30]Monty Marshall and Benjamin Cole, *Global Report 2011: Conflict, Governance, and State Fragility* (Vienna, VA: Center for Systemic Peace, 2011), 13.

[31]Under the direction of Dr. Monty G. Marshall, Director of Research, Center for Global Policy, George Mason University, and supported by the Political Instability Task Force, Societal-Systems Research, and Center for Systemic Peace, the Polity IV Project

codes authority characteristics of states in the world system for comparative, quantitative analysis and qualitative analysis. Ibid.

[32]Information prior to 1996 draws from a compilation of data from historical data maintained by the United Nations Office on Drugs and Crime and International Narcotics Control Strategy Reports.The first UN World Drug Report was published for the year 1997. In 1998, the General Assembly formally mandated that UNODC publish "comprehensive and balanced information about the world drug problem." Beginning in 1999, *Global Illicit Drug Trends* provided comprehensive facts and figures on supply and demand. In 2004, UNODC merged *Global Illicit Drug Trends* and the *World Drug Report* to provide the a more comprehensive report. UNODC, www.unodc.org/unodc/en/data-and-analysis/WDR.html?ref=menuside (accessed June 1, 2012).

[33]Given the unique agricultural requirements of poppy cultivation and the comparatively high-value of its yield compared to other crops, the limited type of terrain suitable for large-scale cultivation of quality poppy crops equates to a natural resource that produces a primary export commodity. Booth, *Opium: A History*.

[34]Occasionally a state both imports large quantities of opium and also grows poppies for opium; however, this phenomenon occurs when internal consumption by addict populations exceeds the state's capacity to produce sufficient opium internally. Examples would include China from the time of the First Opium War until the massive anti-drug program that followed the communist revolution and Iran from the 1950s to the 1980s. Ibid.

[35]Burma Campaign, *Valley of Darkness: Gold Mining and Militarization in Burma's Hugawng Valley* (Kachin Development Networking Group, 2007).

[36]President Obama, (PSD-10).

[37]United States Institute for Peace, *Genocide Prevention Task Force: Providing a Blueprint for U.S. Policy Makers*, December 8, 2011, http://www.usip.org/programs/initiatives/genocide-prevention-task-force (accessed June 1, 2012).

[38]Ibid.

[39]President Obama, PSD-10.

[40]United Nations Office of the Special Advisor for the Prevention of Genocide, *Preventing Genocide*, 2012, http://www.un.org/en/preventgenocide/adviser/genocide_prevention.shtml (accessed June 1, 2012).

CHAPTER 2

LITERATURE REVIEW

Overview

> Each approach explains some occurrences of violence. None by itself, however, constitutes an adequate basis for a general explanation.
>
> — Monica Toft, *The Geography of Ethnic Violence*

The literature review for this thesis will introduce the body of conflict analysis and atrocity literature reviewed in the course of the research, break it down into basic constituent parts, and then provide a more detailed review of the literature that applies to the variables investigated by the thesis. This literature has primarily addressed opium as a funding source that perpetuates particular insurgent activities.[1] Historical works have focused on documenting opium's impact on ethnic groups and political relationships, often in great detail, rather than using the comprehensive framework of conflict analysis to understand the broader implications of the cases they study. Likewise, conflict analysis research has extensively evaluated how economic resources function in contributing to conflict, to include the broader scope of illicit commodities in general.[2] However, an exhaustive review of the literature for this thesis did not uncover conflict analysis literature specifically applying conflict analysis theory to opium as a distinct primary export commodity. This thesis will investigate the likelihood of conflict-driven atrocities based on the way illicit opium functions within certain economic and political settings.

In recent years, the fields of conflict analysis and atrocity studies have continued to help refine prediction methods. To build on existing conflict analysis literature and in keeping with the trend of identifying metrics for predicting conflict and atrocities, this

thesis will identify when opium production coincides with increased internal conflict, and then apply conflict analysis theory to assess the results. Because opium's unique characteristics as a commodity allow for the application of multiple categorizations of conflict analysis theory, it will conclude by addressing the broader implications of the results with respect to how research in the field is conducted. The ultimate goal of the thesis seeks to advance the literature for predicting internal conflict and, thereby, improve planning for atrocity prevention.[3]

Organization

Using topical organization, this literature review will follow the analytical development of the research methodology from macro theory to micro application. This thesis will seek to expand the existing body of knowledge by conducting a detailed application of conflict analysis theory to opium as an economic resource that fuels conflict and atrocities. A review of the larger framework of conflict analysis theory literature will set the stage for establishing how conflict analysis literature relates to opium production and national economies. The contributing factors commonly investigated in conflict analysis literature generally break down into one or more of the following categories: identity, governance, territory and economics.

Conflict Analysis Theory and Genocide Studies

Current State of Publication

Research on the causes of atrocities and conflict suffers no dearth of literature. Recent developments in the field, together with a growing awareness of the benefits of early warning and prevention, have sparked a rapid, continuous publication of new

studies. Moses introduces his six volume collection, *Genocide: Critical Concepts in Historical Studies*, as an "authoritative and comprehensive" collection. He observes that, since the events of Bosnia and Rwanda in the 1990s, "research about and around genocide flourishes as never before" and looks set to continue. [4] This collection demonstrates the difficulty of a truly comprehensive review of literature on genocide or conflict analysis. It includes less than 100 works, a mere fraction of the available literature. It omits a significant body of publications on the various hill tribes of Southeast Asia–for example, Moses covers works on the Chinese Cultural Revolution, the Cambodian Reign of Terror, and the plight of the Chittagong hill tribes in Bengal, but ignores Nobel-nominated scholar Hamilton-Merritt's *Tragic Mountains* in-depth research into the Hmong hill tribes in Laos. Likewise, Moses neglects to incorporate Jonassohn's and Björnson's *Genocide and Gross Human Rights Violations*, which advanced using methods in comparative research to better predict and prevent gross human rights violations by understanding the different origins and processes through which atrocities unfold.[5] Given the volume of literature on genocide alone, much less the broader topic of conflict analysis, this review focuses narrowly on the factors of conflict analysis specifically applicable to the research question.

In approaching this topic, purely academic literature falls into a different category than activist and politically motivated literature, or mixed purpose publications. For example, although all acknowledge the deleterious impact of opium production on the Laotian Hmong hill tribes, a comparison of Lee's *Effects of Economic Development Measures on the Socio-economy of the White Hmong*, Hamilton-Merritt's *Tragic Mountains*, and Emery's various news articles on the Hmong and opium trade in

Southeast Asia, demonstrates how easily academic, argumentative, or activist agendas may influence the perspective a publication present on essentially the same phenomenon.[6]

All these publications discuss the relationship between the Hmong and opium cultivation. Lee focuses academically on their frequent territorial displacement, which he relates to their continued cultivation of poppies as an important part of both their economy and social traditions, and the impact this has on the Hmong's agricultural practices and way of life. Hamilton-Merritt, meanwhile, focuses on the plight of the Hmong people in their struggles against the Lao Pathet communists and the complexities of the United States' involvement in their civil war. Although based on extensive field research, her treatment seeks to generate sympathy for Hmongs' role in the conflict rather than criticize their opium cultivation practices. The perspective Hamilton-Merritt presents stands in sharp contrast to McCoy's similar coverage of the Hmong in *The Politics of Heroin*. Because McCoy has focused on the commodity as it impacts people and politics, he extensively and unapologetically documents how opium warlord Vang Pao rose to power through his position as a Hmong military leader during the Laotian civil war. Finally, although Emery identifies himself as an anthropologist and expert on Southeast Asia, he–like Hamilton-Merritt–admits his advocacy in regard to Hmong human rights issues. In spite of the potential for bias in works by advocates like Hamilton-Merritt and Emery, this literature still contains useful background information and insight.

With the trend toward developing methods for prevention based on theories of causation, both genocide studies and conflict analysis have increasingly moved beyond their focus on certain "traditional" concepts.[7] As a starting point, academics and

policymakers recognize the inherent problems in the narrow, intent-based definition of genocide. For example, Rummel argues that narrowness of requiring intent inhibits properly identifying countless atrocities, although the Rome Statute does assist in punishing much of the behavior not included in the genocide definition. Meanwhile, Destexhe, the Secretary-General of Doctors Without Borders, feels that an expansion of the term diminishes its significance.[8] Hence, genocide prevention studies has expanded into the broader realm of atrocities and political/ethnic conflict. Also, as Collier and Hoeffler observe in *Beyond Greed and Grievance: Feasibility in Civil War*, in the past half a century, internal conflict has occurred more frequently than conventional conflict and for longer durations–often ten years or more.[9] With the rarity of large-scale conventional warfare and the increasingly devastating impact of internal conflict on civilian populations, conflict analysis has progressively increased its focus on understanding the cause, intensity and duration of small-scale violence.[10]

Conflict Analysis: Key Works and Categorization

Research on conflict analysis theory falls within one or more of the following categories: identity (political, ethnic, racial, or religious), governance, territory or economics. This thesis will quantitatively focus on an economic analysis of conflict. The case studies will also qualitatively consider the impact of governance in relation to the findings of the study.

In their 1998 publication *On Economic Causes of Civil War*, Collier and Hoeffler presented their theory of greed versus grievance in the motivations behind internal conflict, sparking considerable debate along with a new direction for extensive conflict analysis research. After controlling for economic factors of income and natural resources,

they found that identity-based factionalism did not considerably contribute to increased conflict.[11] They argued that against the simplicity of the traditional grievance model that ethnic diversity (and resulting disparate treatment of those populations) drives conflict. In conclusion, they asserted instead that greed drives internal conflict by taking advantage of a legitimate grievance. In areas where natural resources provide easy access to income, people who seek economic gain will drive conflict by using the legitimacy of the grievance to rally the support of people who honestly desire to see their grievance resolved.

In a subsequent 2004 study, Collier and Hoeffler found that a GDP reliance on primary (licit) commodity exports "significantly and substantially increases the risk of conflict. . . . [with] 10% and 25% of their GDP coming from natural resources, holding other characteristics constant, . . . the risk of a civil war in the subsequent five years rises" by nearly 20 percent.[12] In comparing several different primary export commodities, Collier and Hoeffler identified oil dependence as having a significantly higher incidence of conflict compared to other primary export commodities, such as timber or mineral wealth.[13] However, although this study conceptually mentioned drugs and kidnapping as potential "lootable resources," they did not identify either as a tested primary export commodity.

As Collier and Hoeffler noted, none of the economic factors alone explain all conflict.[14] In recent literature on conflict analysis, although Collier has lately begun attempts to analyze multiple variables, the most common methodological trend applies the underlying theory of a particular category to a selected body of existing data. The research tests the theory's validity and then analyzes it in terms of one or more case

studies that apply the considerations of non-economic factors. For example, Toft's *Geography of Ethnic Violence* examines the "violence that pits ethnic groups against states" by measuring the risk of violent ethnic conflict in light of the relative territorial dispersion or consolidation of ethnic groups; she tests her results using case studies of the Chechen-Tartar and Abkhaz-Ajar conflicts.[15] However, although Toft purports to study how the distinct relationship between territory and ethnicity impact conflict, she observes that her finding of increased conflict in the presence of a territorially consolidated ethnic majority results from the threat they pose to the central government–harkening back to concerns over understanding how governance and state strength versus weakness impacts the analysis of the results.

Likewise, in *The Prize of Predation*, Olsson and Fors measure the intensity and duration of internal armed conflict by examining the income available from predation (i.e., looting) of natural resources against the central government's investment in either defense or in public utilities.[16] Their method built on Adam's and O'Connell's earlier conflict analysis model of economic wealth versus corruption in which the central government has a choice between investing economic wealth into public goods and redistributing it back to itself.[17] They then apply their findings to the Congolese wars against Mobutu and Kabila, arguing that their findings help explain differences between the duration and intensity of two conflicts in identifiable and measurable terms.[18] Their test reaffirmed Collier and Hoeffler's original theory that natural resources do increase the likelihood of conflict, but the impact on intensity and duration only significantly increases where the central government has not sufficiently invested in its defense structure or public works.

These studies essentially seek to rationalize conflict in terms of identifiable dependent and independent variables. However, the most useful information in them comes from theories that factor in the unique qualitative aspects that other categories bring to the conflict. Regardless of conflict analysis category, the literature collectively reveals that conflict develops based on rational actors making rational–and, therefore, reasonably predictable–decisions.

Gross Domestic Product

Approaching conflict analysis primarily from the reference of economic theory, this thesis will use GDP to assess the impact of opium production on the probability of internal conflict. Gross Domestic Product (GDP) traditionally indicates the economic health of a central government. Even while asserting his dislike of GDP for its illusory measure of economic health (due to problems inherent in the method of calculating GDP), Shostak still admits that GDP provides "a frame of reference to assess the performance of government officials."[19] In a separate vein of academic criticism regarding GDP's inability to measure individual wellbeing, Fleurbaey, Conceicao and Bandura all acknowledge that "a long tradition of economic theory seeks to relate social welfare to the value of total income or total consumption" and "traditionally, wellbeing has been identified with a single objective dimension: material progress measured by income or GDP."[20]

Criticism of GDP ranges from information collection and calculation methods to limitations on interpreting the data. As previously discussed in Chapter 1, GDP data does not collect information on underground economies to factor into calculations. Schoen disapproves of statisticians' ability to make numeric adjustments that do not properly

reflect true growth, thereby skewing GDP data in a way that overstates economic health.[21] Along with several other economic critics, the Global Exchange decries GDP for the following reasons: its use of a consumption model fails to account for changes due to production or time factors; it fails to account for the cost of destructive growth versus the benefit of productive growth; and it fails to account for changes in individual welfare in cases where a majority of individual incomes fall in spite of a total rise in GDP.[22]

These criticisms typically focus on GDP's inability to reflect individual well-being or the environmental impact of economic growth, rather than criticizing GDP for its ability to accurately represent economic growth. An emerging body of literature has researched alternative methods of calculating prosperity and even "happiness." This literature review does not address additional research into individual economic wellbeing because the thesis follows a more strict and traditional economic model of conflict analysis theory.

As Collier notes in *Natural Resources, Development and Conflict*: "the level of per capita income strongly influences the risk of conflict. At high levels of per capita income the risk of civil war is negligible, with or without natural resources."[23] Therefore, this thesis only uses GDP data to examine the impact of primary export commodities in relation to the total national economy and not in relation to individuals. Larger implications of primary export commodity reliance in relation to individual wealth require research and analysis beyond the scope of this thesis.[24]

GDP composition factors into official conflict assessments by international financial institutions. The World Bank metrics assess a country as "at risk" for experiencing violent conflict when its dependence on primary commodity exports

proportionally exceeds sixteen percent of its GDP.[25] In identifying this criterion and establishing some of the metrics for this assessment, The World Bank commissioned Collier to research the relationship between economics and conflict.

In conducting these initial studies, Collier identified that internal conflict significantly increases when natural resources, as a primary export commodity, comprise a significant percentage of GDP.[26] Worth noting, Collier also observed distinct implications in the interplay between GDP and natural resources as a primary commodity depending on the level of corruption and degree of democracy or autocracy in the political system.[27] Hence, GDP's relationship to conflict analysis falls squarely within the category of economic considerations and has implications relevant to governance.

Opium

As a high value, easily transported commodity and easily replenished resource, the opium trade logically factors into economic theories of conflict analysis. Across the body of literature on the history of opium, the assessment of its value as a primary export stands fast. Traditionally, opium farming has provided a reliable and easily grown cash crop for peasant farmers and a reliable source of substantial revenue as an export and as a tax source. This revenue substantially benefits whoever controls the opium trade–legal or illicit.[28]

In *Opium: A History*, Booth observes that the colonial revenues from the opium trade in British India and Hong Kong during the 1800s regularly amounted to as much as one sixth of their annual gross product.[29] Chandra's *Economic Histories of the Opium Trade* concurs that "the use of opium to generate excise revenues for states, especially colonial powers, gradually became the standard practice," sometimes even exceeding ten

percent of all state revenue.[30] Controlling the impact on state revenues and on rural farmers posed the greatest obstacle to early attempts at combating the increasing global opium addiction problem in the early 1900s.[31]

Although the criminal aspect of the modern opium trade has not favored open access to information, journalists and researches in this field have gone to considerable effort to obtain reliable information. Likewise, international organizations take considerable efforts to monitor the opium trade. As revealed in their studies and reports, and as documented by the United Nations Office on Drugs and Crime (UNODC), the value of the opium trade has clearly not decreased today.[32] Peasant farmers continue to subsist by growing poppies, which provide a reliable source of income in comparison to other crops.[33] The opium they sell and the opiates it produces also amounts to a substantial revenue source for buyers and distributors–with the only major difference on the beneficiary end.[34]

Studies of the illegal drug trade acknowledge the wealth of the drug lords, syndicates, and cartels that control the opium trade.[35] Although varying in breadth and detail, all of these studies address the prevalence of internal conflict, to at least some extent, in areas under control of these criminal elements. Most commonly, literature on the opium trade focuses on conflicts that result from rebel factions using opium income as a source of funding for their insurgencies or political movements.

For example, Booth describes how the Kuomintang, under Chiang Kai-shek, funded their military through opium-based revenue to combat Mao Zedong's Communist forces.[36] Meanwhile, Tullis differentiates the actions of various factions based on a greed versus grievance model of conflict analysis, identifying some groups that rely on opium

money to overthrow their governments as opposed to others profit-oriented groups that "accept or fight national governments depending on whether they are impeded or facilitated in their illicit-drug work."[37] Other literature reflects opinions of Khun Sa and Lo Hsing-han as drug lords who masqueraded behind their plight as leaders of their respective ethnic struggles in Burma. Bernstein and Kean discuss the relationship between Burmese drug lords and the military junta at length.[38] In the wake of developments after the cease-fire, Quig also complains of this relationship in his plight for the Wa people of Burma.[39] As for the Revolutionary Armed Forces of Colombia (FARC), in Streatfeild's personal interview of their own spokesman, Trinidad freely admits that their organization uses income from illegal drugs to fund their ongoing attempt to overthrow the central government of Colombia.[40]

Of the major studies in this field, McCoy's *The Politics of Heroin* presents one of the most frequently cited, and arguably the most comprehensive, accounts of the current opium trade and its development. His detailed reporting of the opium environment in the Shan State and Kachin State of Burma depicts the complexity of the conflict that accompanies the opium trade. Of specific interest with respect to opium poppy growth, he observes a phenomenon that occurred in Laos highlighted by the conflict among various hill tribes warlords and rebel factions of the Hmong. Rebel armies use income from the opium fields they control to buy arms, so that they can fight to gain more opium lands, so that they can buy more arms–he refers to this self-perpetuating conflict as the "opium-arms cycle."[41]

In literature on the opium market from the perspective of drug commodities, the focus leans toward its role in financing insurgency, with less detailed inquiries into the

motivations of the various actors. On the other hand, historical studies into the relationships between specific insurgent groups and their central governments focus more on factors associated with other categories of conflict, such as the political and ethnic environment, the economic status of the people, the strength of the central government, problems with corruption and unique aspects of the territory in which the fighting takes place.[42]

Some excellent examples of literature on the complexities of conflicts in the Golden Triangle include Smith's *Burma: Insurgency and the Politics of Ethnicity*, Laitin's *Burma in Revolt* and Hamilton-Merritt's *Tragic Mountain*. Smith, Laitin and Hamilton-Merritt all based their research on personal observations from field work coupled with extensive background research of historical documents and literature. All of them also acknowledge opium's contribution to the income that perpetuated insurgent groups in their civil conflicts. None of them conduct an in-depth, scientific analysis of the specific relationship between opium production and internal conflict. In spite of their difference in focus, these studies also identify the critical impact of the opium trade on these regions.

As acknowledged in literature on GDP, its calculations do not directly account for opium, as an illicit commodity. However, the UNODC monitors, as closely as possible, facets of the opium trade ranging from the hectares dedicated to poppy growth, to the metric tons and the quality of the raw products coming from those crops, to the production of opiates and resulting export traffic. Data from UNODC and similar sources documents the dollar value of annual opium production in terms of its market value at

various states, which enables a reasonably accurate calculation of the percentage of the opium market in terms of a national GDP.[43]

Conclusion

This literature review surveyed the essential background in the field of conflict analysis theory, as necessary to understand the framework and parameters of the methodology presented in the following chapter. Methodology in this field continues to develop but has inherent weaknesses. A meaningful research methodology necessitates a narrow focus to isolate specific variables, but this focus sacrifices one conflict analysis category at the expense of another.[44] It limits the context of the research and inhibits the development of a more comprehensive theory.[45] With the notable exception of Collier, too much of the literature myopically advances a single category of conflict analysis while criticizing others when the findings merit integration into a larger body of literature.[46] Even with this flaw, research in the field has significantly advanced in the past two decades. In time, the collective body of work will provide sufficient and reliable detail to develop a more organized, formulaic method.

As indicated from a review of the literature and the most common methodologies, an analysis of data on opium production and GDP will reveal a predictable and replicable pattern in the incidence of conflict in association with changes in opium production. Otherwise, it will rule out opium production as a significant indicator in predicting mass atrocities. The conclusions of this thesis will contribute to the collective body of research to identify the most useful intelligence information for predicting conflict and preventing atrocities. Ideally, the results of this thesis will encourage further similar research into the efficacy of other warning indicators.

[1]Discussed in further detail later in Chapter 2 and in notes 6 and 29, Chapter 2.

[2]In 1998, Collier and Hoeffler began this movement, discussed in more detail later in Chapter 2. Paul Collier and Anke Hoeffler, "On Economic Causes of Civil War" (1998): 563-573.

[3]Raphael Lemkin coined the term *genocide* to describe the crime committed by the Nazis during their systematic annihilation of the Jews during the Holocaust. BBC, *Analysis: Defining genocide*, BBC World News Online, http://www.bbc.co.uk/news/world-11108059 (August 27, 2010). In spite of nearly universal support for the well-knonw post-Holocaust proclamation "never again," modern cases of genocide and mass atrocities continue even three quarters of a century later, most developing out of internal conflict. Media revelations of the genocides in Bosnia, Rwanda, Darfur, and Sudan spurred a rising popular awareness of the horrors of mass atrocities. However, awareness of an ongoing conflict does not predict atrocities in time to stop them. Whereas media reports seldom raise public awareness until after violence has already begun, government intelligence collects advance information of developing atrocities. Nick Killick and Simon Higdon, *The Cost of Conflict* London. International Alert/Saferworld. 1998. Notwithstanding the finality of the loss of human life once an atrocity has erupted, economic factors support early intervention. The costs of ending an ongoing conflict and the resulting reconstruction post-conflict almost always exceed the costs associated with prevention. PSD-10 charged executive agencies to integrate intelligence capabilities and develop ways to better identify potential or developing atrocities. Although these agencies have the means of gathering relevant information, they need to know what is relevant. They need to know why it is relevant, how to interpret it, when to act. Recent developments in the doctrine of Responsibility to Protect (R2P) have pleased the humanitarian and human rights communities but have raised legitimate concerns over state sovereignty. The traditional distinctions between interstate and intrastate conflict or civil war have generally left states to their own devices in determining how to best handle internal civil conflict, provided that they do not violate human rights in the process. The implications of R2P provide a basis for intervention into internal conflict, regardless whether the state itself commits violence against its civilians or simply because the state cannot prevent others from committing this violence.

[4]A. Dirk Moses, *Genocide: Critical Concepts in Historical Studies* (London: Routledge, June 17, 2010).

[5]For example, creating starvation through displacement and scorched earth policies functions as a low-cost method for a government to accomplish its objectives. Kurt Jonassohn and Karin Bjornson, *Genocide and Gross Human Rights Violations in Comparative Perspective* (New Brunswick, Maine: Transaction Publishers, 1999).

[6]Gary Lee, *The Effects of Development Measures on the Socio-economy of the White Hmong: Opium and the Hmong* (Sydney: University of Sydney, 1981); Jane Hamilton-Merrit, *Tragic Moutains: The Hmong, the Americans, and the Secret Wars for*

Laos, 1942-1992 (Bloomington, IN: Indiana University Press: 1993); James Emery, "Once among the United States' loyal allies, today the Hmong tribesman of Laos are patriots without a country," *Vietnam*, February 2001.

[7]Prior to Rwanda and Bosnia in the 1990s, the most commonly studied genocides were the Turkish-Armenian Genocide and the Holocaust. In each case, the central government fully mobilized its national apparatus to support mass murder and ethnic cleansing, but did so under the claim of national defense during periods of major international armed conflict. The classification of the genocides in Rwanda and Bosnia as "civil war" significantly impacted the response from the international community, sparking the new era of scholarship on international intervention into internal conflicts that eventually culminated in the development of the R2P doctrine. Samantha Power, *A Problem From Hell: America and the Age of Genocide* (New York: Harper Perennial, 2003).

[8]J. Rummel, *Genocide*, 2002, http://www.hawaii.edu/powerkills/GENOCIDE.ENCY.HTM (accessed June 1, 2012). Debate over the term continues on both sides. "Some analysts contend that the definition is so narrow that none of the mass killings perpetrated since the treaty's adoption would fall under it;" meanwhile, others claim "the word genocide . . . has progressively lost its initial meaning and is becoming 'dangerously commonplace.'" BBC, *Analysis: Defining Genocide*.

[9]Paul Collier and Anke Hoeffler, "Beyond Greed and Grievance: Feasibility and Civil War" *Oxford Economic Papers* 61, no. 1 (2009): 1-27, 3; Strøm and Öberg, *Resources, Governance and Civil Conflict*, 4.

[10]Strøm and Öberg, *Resources, Governance and Civil Conflict*.

[11]Paul Collier and Anke Hoeffler, "On Economic Causes of Civil War" *Oxford Economic Papers* (January 1998): 563-573.

[12]Paul Collier, "Natural Resources, Development and Conflict: Channels of Causation and Policy Interventions," World Bank (April 28, 2003): 1-13.

[13]Ibid.

[14]Ibid.

[15]Monica Toft, *The Geography of Ethnic Violence* (Princeton: Princeton University Press, 2005), 10-12.

[16]Ola Olsson and Heather Fors, "The Prize of Predation," *Journal of Peace Research* (March 2004): 327-330.

[17]Christopher Adam and Stephen O'Connell, "Aid, Taxation and Development in Sub-Saharan Africa," *Economics and Politics* (November 1999): 332-334.

[18]Ibid., 332-334.

[19]Shostak literally states GDP is an illusory frame of reference but, in doing so, also admits that it provides "a framework." Frank Shostak, "What is up with the GDP?" *Mises Daily*, August 23, 2001, http://mises.org/daily/770 (accessed June 1, 2012).

[20]Marc Fleurbaey, "Beyond GDP: Is There Progress in the Measurement of Individual Well-being and Social Welfare?" *Journal of Economic Literature* 47, no. 4 (December 2009) 1029–75; Pedro Conceição and Romina Bandura, *Measuring Subjective Wellbeing: A Summary Review of the Literature* (Office of Development Studies, United Nations Development Programme, 2008).

[21]John Schoen, "GDP data overstates economy's health," *MSNBC News*, January 29, 2010, Business Section, Online edition, http://business.new.newsvine.com/_news/2010/01/29/3829079-gdp-data-overstates-economyshealth?commentId=12076021 (accessed June 1, 2012).

[22]David Jolly, "GDP seen as an inadequate measure of economic health," *New York Times*. September 14, 2009, Global Business section, Paris edition; Global Exchange, "Why GDP is an Inappropriate Measure of Economic Health," 2012, http://www.globalexchange.org/resources/econ101/gdp (accessed June 1, 2012).

[23]Collier, *Natural Resources, Development and Conflict*, 2

[24]In the larger debate over greed versus grievance as motivating factors in conflict analysis, the findings and analysis collectively appear to support the proposition that a legitimate and shared grievance must exist before conflict occurs. Whether greed provides the impetus at an identifiable economical point requires further research.

[25]World Bank Conflict Prevention and Reconstruction Unit, "Conflict Risk Screening Guide," *The Conflict Analysis Framework*, October 2002, http://siteresources.worldbank.org/INTCPR/214578-1111751313696/20480168/CPR+5+final+legal.pdf (accessed June 1, 2012).

[26]Collier, *Natural Resources, Development and Conflict*.

[27]Paul Collier, "The Political Economy of Natural Resources" *Social Research*, 77, no. 4. (Winter 2010): 1112-1117.

[28]Booth, *Opium: A History*; Chandra, "Economic Histories of the Opium Trade"; Alfred McCoy, *The Politics Of Heroin* (Chicago: Lawrence Hill Books, 1991); Ibrahim Poroy, "Expansion of Opium Production in Turkey and the State Monopoly of 1828-1839," *International Journal of Middle East Studies* 13, no. 2 (May 1981): 191-211; Kathleen Gillogly, "Opium, power, people: anthropological understandings of an opium interdiction project in Thailand," *Contemporary Drug Problems* 35, no. 4 (Winter 2008): 679-715; Ryan Gingeras, "In the Hunt for the "Sultans of Smack:" Dope, Gangsters, and

the Construction of the Turkish Deep State," *The Middle East Journal* 65, no. 3 (Summer, 2011): 426-441.

[29]An 1832 government report referred to the East India Company's opium trade as an "important source of revenue." It comprised one sixth of British India's gross national product that year. One sixth of colonial revenue from Hong Kong in 1882 came from the opium trade. Booth, *Opium: A History*, 115, 149.

[30]Chandra, "Economic Histories of the Opium Trade."

[31]A 1906 treaty established a timeline to reduce British opium imports, provided that China reduced its domestic production. The initial 1911 Hague conference produced an ineffective document because none of the signatories wanted to suffer the economic consequences involved in a legitimate attempt to regulate or restrict the opium trade. For the "substantial corpus of international legislation controlling opium and its derivatives . . . the main obstacle to getting them passed [was] the reluctance of countries with vested interests . . . Producing nations protected their revenues . . . and their farmers." Booth, *Opium: A History*, 160, 182.

[32]UNODC calculates regional shares in the global opium market based on its percent value in *billions* of US dollars. The 2011 UNDOC World Drug Report estimated that the 2009 global drug market totaled approximately US$31 billion and found that, "in 2009, the Taliban's total income from the opiate trade was likely around US$155 million. However Afghan opium farmers likely earned US$440 million and Afghan drug traffickers almost US$2.2billion." UNODC estimated that the Taliban obtained its share of this income from taxes and protection fees for opium shipments. World Drug Report 2011, 83.

[33]McCoy, in *The Politics of Heroin*, recognizes that the international market for commodities and manufactured goods controls the basic economic decisions of farmers. The terrain and inaccessibility of regions where poppies grow best makes the cost of transportation high for all but light weight crops. As a result, most of these farmers cannot subsist off most crops other than rice or opium. Opium, having a higher value-to-weight ratio, offers the best source of income. McCoy, *The Politics Of Heroin*, 11, 127.

[34]Even as Britain reduced its official imports into China in the early 1900s, demand from the large Chinese addict population continued and cultivation by local war lords began. By 1923, a majority of provinces in China had illicit crops. Booth, *Opium: A History*, 160.

[35]Poppy growers receive relatively little profit, in comparison to opiate producers and trafficking organizations. Tullis asserts that many farmers would grow legal crops if they could do so and continue to survive; however, even where concern for reduced profit does not prevent this step, regional drug overlords typically prevent them from doing so.. He observes that growers in regions "once controlled by Khun Sa are 'ordered' to grow drug crops." Tullis, *Unintended Consequences*, 18, 26; Even absent actual force, most

poppy farmers become stuck in a debt cycle – a cycle Lu Saw advocates against in his *Plea*. Lu Saw, *The Bondage of Opium: The Agony of the Wa People, A Proposal and A Plea* (Raleigh: Center for the Public Domain), http://www.ibiblio.org/obl/docs/BONDAGE. htm (accessed June 1, 2012); As McCoy notes, crop seed requires financing to purchase. McCoy, *The Politics of Heroin*, 11; Most poppy farmers purchase seed on loans which the crop sales satisfy annually, earning enough profit to continue subsisting but seldom enough profit to transition to another market. Draper interviews Afghan farmers who describe their frustration with this problem. Draper, *Opium Wars*.

[36]Booth, *Opium: A History*, 165-166.

[37]Tullis, *Unintended Consquences*. 84.

[38] Bernstein, and Kean convincingly advance the argument that the numerous cease-fire agreements signed in Burma during the 1990s resulted from government's complicity in working with these insurgent groups, rather than against, their continued opium trade. Bernstein, and Kean, "People of the Opiate."

[39]Brian Quig, "Khun Sa Drug Deal No Surprise Says Karen Leader," in *Intelligence Connection*, 1996, http://www.apfn.net/dcia/khunsa.html (accessed June 1, 2012).

[40]Dominic Streatfeild, "FARC guerrilla #1: Simon Trinidad FARC Spokesman at the Negotiating Table," November 20, 2000, http://www.dominicstreatfeild.com/2010/11/26/interview-with-simon-trinidad-farc-spokesman/ (accessed June 1, 2012). John Otis, "Paez Indians wage a struggle for survival/Colombian indigenous group seeks to solve woes peacefully," *Houston Chronical*, September 9, 2001, South American Bureau section, Online edition, http://www.chron.com/news/nation-world/article/Paez-Indians-wage-a-struggle-for-survival-2041072.php (accessed June 1, 2012); Gaelle Sevenier, "Massacres of Indigenous Peoples in Colombia," *Radio Feminista*, June 21, 2004, South American edition, http://www.radiofeminista.net/junio04/notas/colmassacre-ing.htm (accessed June 1, 2012).

[41]McCoy, *The Politics of Heroin*, 424.

[42]Bertil Lintner, *Burma in Revolt* (Chiang Mai: Thailand Silkworm Books, 2000); Martin Smith, *Burma: Insurgency and the Politics of Ethnicity* (London: Zen Books Ltd., 1991); Hamilton-Merritt, *Tragic Mountains*.

[43]In U.S. dollars.

[44]Adelman acknowledges the difficulty in finding a unique, formulaic explanation for the cause of mass atrocities after his review of the literature. Adelman, "The Theory and History of Genocide."

[45]Comparing Toft and Collier, their approach to their individual data sets appears to seek a neat answer for a single variable, although some of Collier's most recent work

has begun examining multiple variables. None of the research on single variables adequately explains their meaning without additional qualitative analysis in their case studies.

[46]Toft, *The Geography of Ethnic Violence*, 4-10, 168-170. Also note that the Chapter 2 epigraph quotes her literature review which unfortunately applies as equally to her own theory as it does those she criticizes.

CHAPTER 3

RESEARCH METHODOLOGY

> Some variables may powerfully influence civil conflict, but only in certain contexts.
>
> — Kaare Strøm and Magnus Öberg, eds.,
> *Resources, Governance and Civil Conflict*

Objective

This thesis will test the association between changes in opium production and internal armed conflict, using the economic constituent of conflict analysis theory. A comparative analysis of longitudinal trends will assess the impact of selected variables on the incidence of conflict. A thorough study and review of conflict analysis literature will confirm that conflict analysis provides a sound framework for this test. It will also support that opium, as a primary export commodity, and Gross Domestic Product (GDP) constitute appropriate variables for the study. After identifying reliable data sources and collecting the data to test the hypothesis, a quantitative analysis of the research variables will answer the primary question. In conclusion, a qualitative analysis will apply the results to the case studies of Burma and Afghanistan. This mixed methodology will help examine the likelihood of a causal relationship between opium and conflict while also assessing the mechanisms that affect that relationship.[1]

Research Materials

This thesis will use historical data, reports, records, archival documentation, other research published in journals and books and, where possible, direct reports from first hand observers. Materials will include only open source documents available in the

public domain. Data collection will draw from reliable databases and sources with definitions and coding appropriate to the established assumptions, definitions, limitations and delimitations and consistent with the literature review. Organizing, analyzing and interpreting this data will allow the research to arrive at an answer the primary and subordinate questions of the research problem.

Research Framework

First Step: Literature Review–Ensure Conflict Analysis Theory Supports the Question and Methodology

A review of the framework of conflict analysis theory will support the validity of the variables in question–specifically, how opium, as an economic commodity, contributes to internal conflict. This step will ensure that testing the hypothesis will provide meaningful analysis and policy recommendations. Conflict analysis studies suffer from difficulty in identifying adequate and appropriate means to measure data and establish a causal relationship. In *Insights from macro studies of the risks of civil war,* Lacina recommends using event data to distinguish when certain variables played a role in conflict.[2] Although this method proves insufficient to establish causation, it narrowly defines and reliably tests the mechanisms of interest. This process assists in better understanding the likelihood that a causal relationship exists.

Second Step: Screening Criteria–Identify Appropriate Nations for Study

Screen for Opium Production Quantity

The test for this hypothesis will only examine data for selected nations, the first variable subject to selection bias. To avoid selection bias, it will only use data on nations for which the United Nations Office on Drugs and Crime (UNODC) has already

identified raw opium production as having sufficient global value to monitor and report.[3] This study assumes that UNODC records have the most sufficiently accurate and unbiased data to reliably determine which nations have acted as the world's leading opium producers from 1980 through 2010. Selecting based on UNODC data will provide the first step in applying screening criteria to data collection. Establishing a longitudinal period covering thirty years will provide sufficient annual data points for a trend analysis.

Screen for Opium Production Relative Value

The second step in the screening criteria will look at the percentage of the illicit opium economy relative to the total national GDP. This minimum threshold requires that any nation subject to study have an economy in which the value of opium as a primary export commodity exceeds at least ten percent of the total GDP during at least one year in the period from 1980 to 2010. This screening method will limit the conflict data collection to nations in which the opium economy from primary commodity exports, and its probable contribution to national economic growth, actually amounts to a statistically significant quantitative value for testing.

Third Step: Collect and Compile GDP and Opium Data

GDP

To determine the size of the national economy for each year, data collection will draw annual GDP data for the period1980 through 2010 from the National Accounts Estimates of Main Aggregates. The Economic Statistics Branch of the United Nations Statistics Division compiles and maintains this data.[4] Because this database already incorporates official estimates for missing data, this thesis will not interpolate for missing

data. This data will use United States dollars, normalized to a constant value based on 2005, as directly provided by the database source.

A compilation of this data into a chart showing each nation's annual GDP will provide a visual and numeric representation of the annual change (see Figure 1). This data will show whether GDP has increased or decreased concurrently with changes in opium production and whether GDP has increased or decreased concurrently with changes in internal armed conflict.

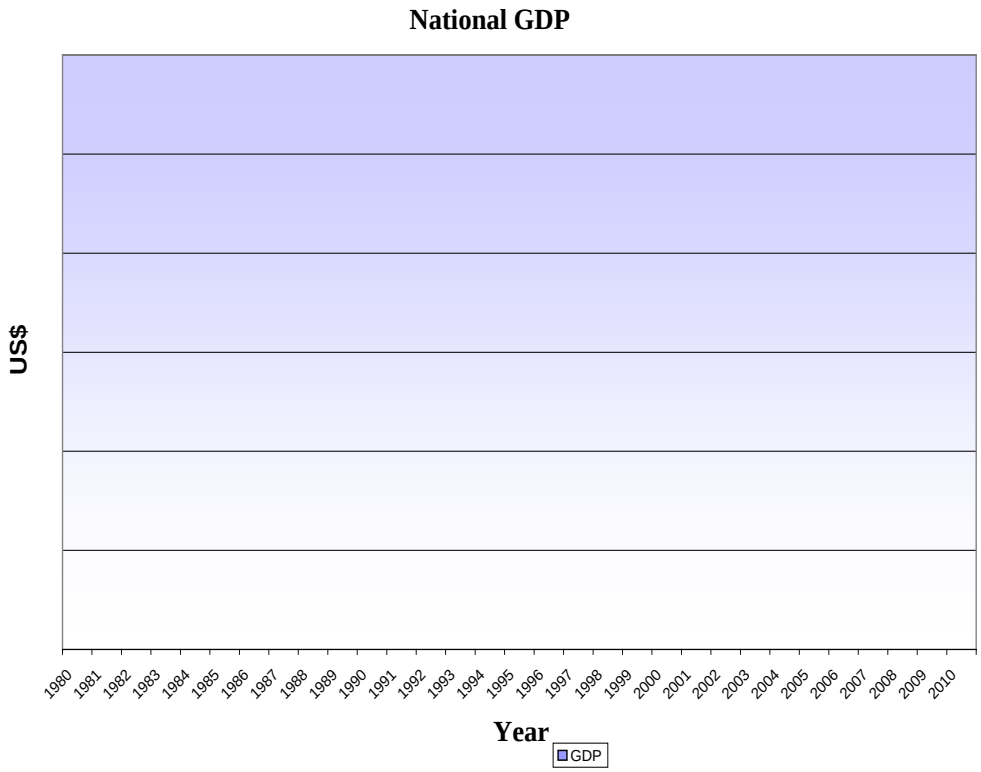

Figure 1. Sample GDP Data Chart

Source: Created by author.

Opium Value

To determine the annual value of raw opium products as a primary export commodity in the studied nations, this thesis will pull data for the years 1980 through 2010 from the UNODC's National Illicit Crop Monitoring System and World Drug Reports. Where UNODC does not have available data or has not reported prior to a specific year, the data will use information reported in the United States (U.S.) International Narcotics Control Strategy Reports (INCSR) or by the governments of the concerned nations.[5] This methodology will not interpolate for missing opium data, nor will it draw data from alternative sources when the data diverges from readily observable trends.

To find the value of annual opium production, the chart will calculate the product of the data for (1) raw metric tons of opium produced per year and (2) the annual per metric ton at the local value of raw opium, after first converting into metric tons from the reported per kilogram value. The local value normalized for the 2005 U.S. dollar will accomplish two things. First, it will provide a value for the opium using the same constant year as the GDP data to allow for comparison. Second, it will account for the specific commodity value of the opium within each market where it is produced and traded.[6]

A compilation of this data into a chart showing the value of each nation's annual opium production will provide a visual and numeric representation of the annual change (see Figure 2). This data will show whether the value of opium production has increased or decreased concurrently with changes in GDP and whether the value of opium

production has increased or decreased concurrently with changes in internal armed conflict.

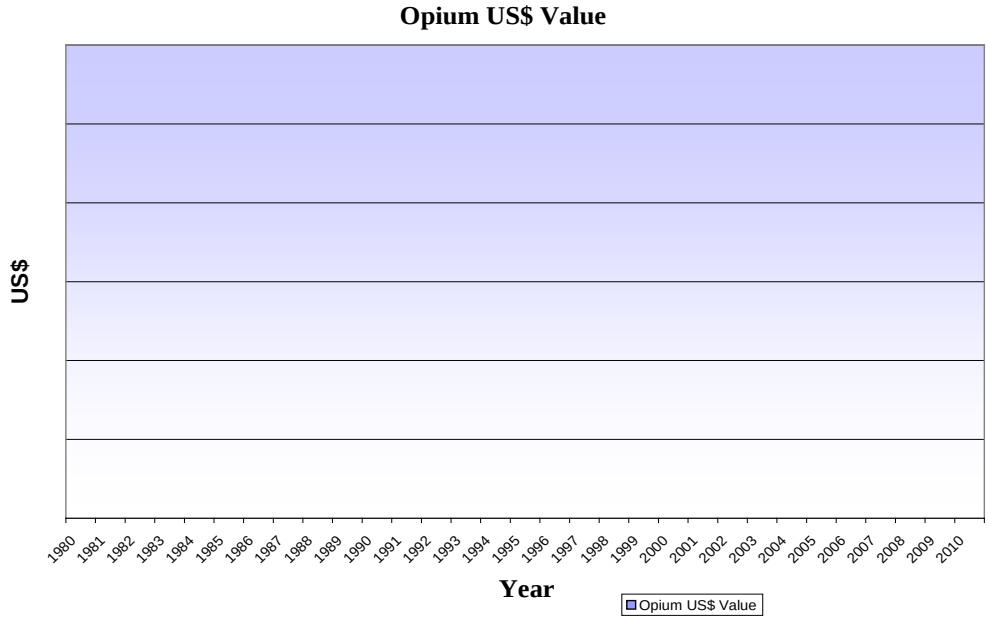

Figure 2. Sample Opium Data Chart

Source: Created by author.

Combined Data

For simplicity and clarity, the analysis of these two data sets in Chapter 4 will use a combined chart to present the data from each (see Figure 3). A single frame of reference will assist in visually comparing longitudinal trends. Additionally, this combined data will provide the annual ratio for the value of opium production in relation to GDP, calculated by dividing the opium value data by GDP data. This GDP-to-opium value ratio will define the screening criterion for conducting conflict analysis. A chart showing the changes in this ratio from year to year will also provide a visual reference for

analyzing longitudinal trends in the relationship between GDP and the value of the opium export commodity (See Figure 4).

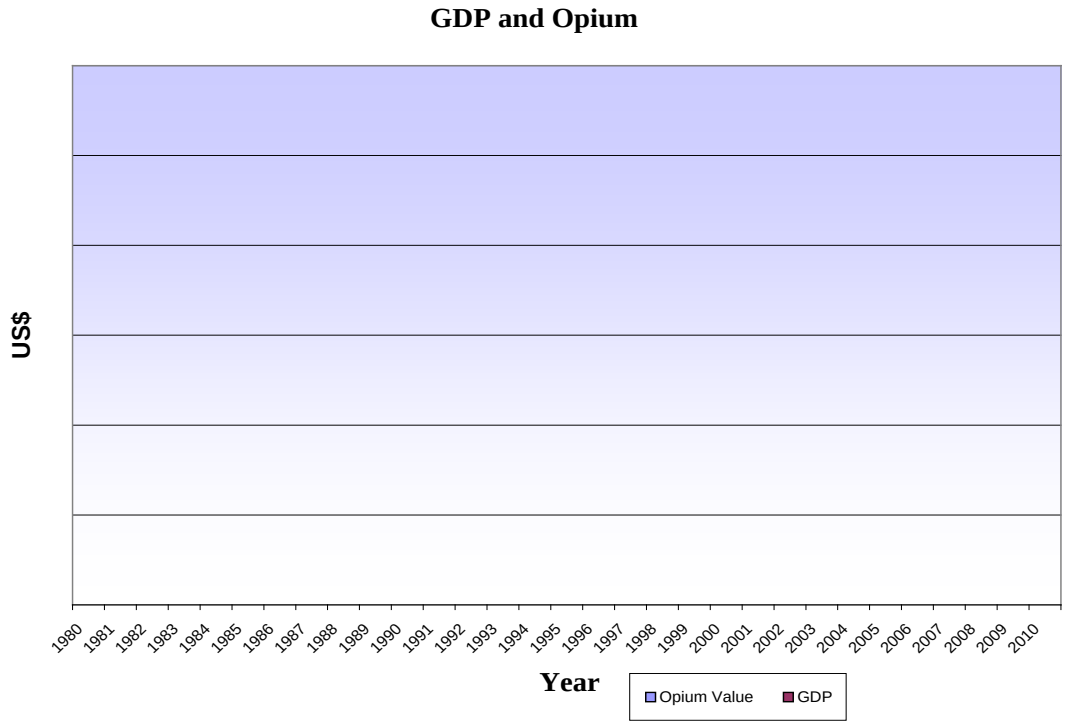

Figure 3. Sample Combined GDP and Opium Data Chart
Source: Created by author.

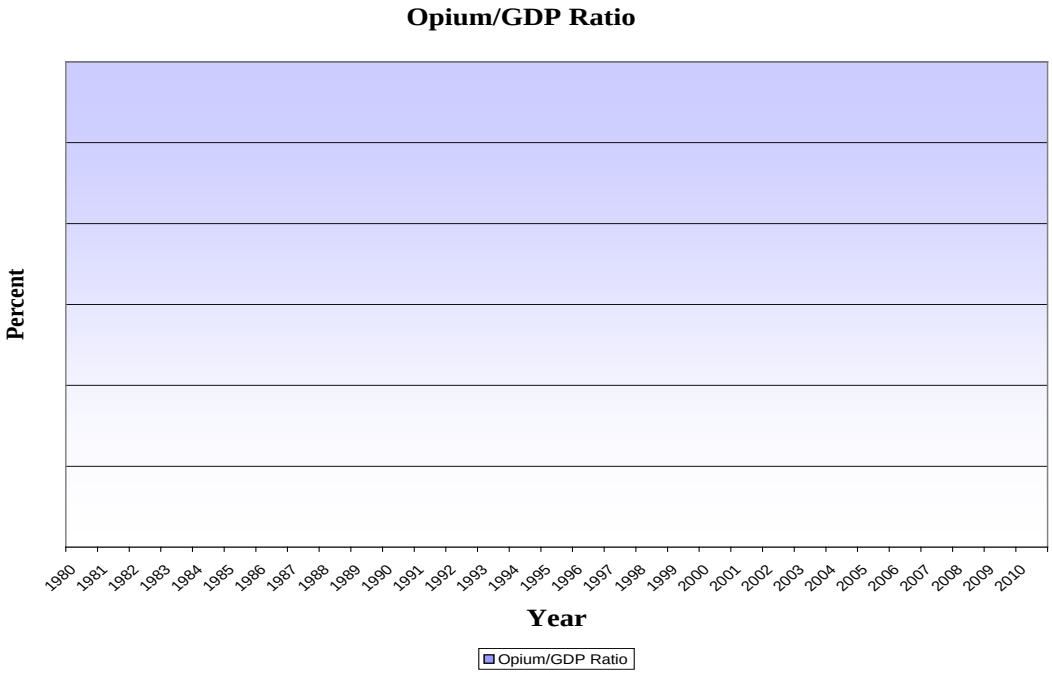

Figure 4. Sample Opium/GDP Ratio Data Chart
Source: Created by author.

Fourth Step: Collect and Compile Conflict Incidence Data

After identifying which nations have a statistically significant opium economy, data collection will proceed to conflict analysis. The data collection will identify the annual frequency of internal conflict from 1980 to 2010. This thesis will source conflict analysis data from the Uppsala Conflict Data Program (UCDP).[7] Prior research in this field has relied extensively on this data.[8] Therefore, this data will provide a pertinent, accurate, reliable and replicable measure of the incidence of internal armed conflict within a nation. In testing the impact of opium, this thesis will draw from three unique sets of UCDP data on internal armed conflict, non-state conflict and one-sided conflict. It will not measure the actual incidence of individual atrocities. As previously discussed,

this thesis assumes that the relationship between internal conflict and its impact on civilian populations permits this substitution.

In compiling the data, the annual total number of conflicts will include the incidence of state-involved armed conflict, internal armed conflict between non-state actors, and one-sided conflicts involving twenty-five or more unarmed civilians, regardless of state involvement. For a conflict spanning multiple years, it will count as a unique conflict occurrence during each year from conflict start to conflict termination[9]. For quantitative analysis, a chart depicting a similar time-sequenced compilation of this data will show the total number of conflicts per year. For further qualitative analysis, this chart will break down these conflicts in relation to state involvement (see Figure 5).

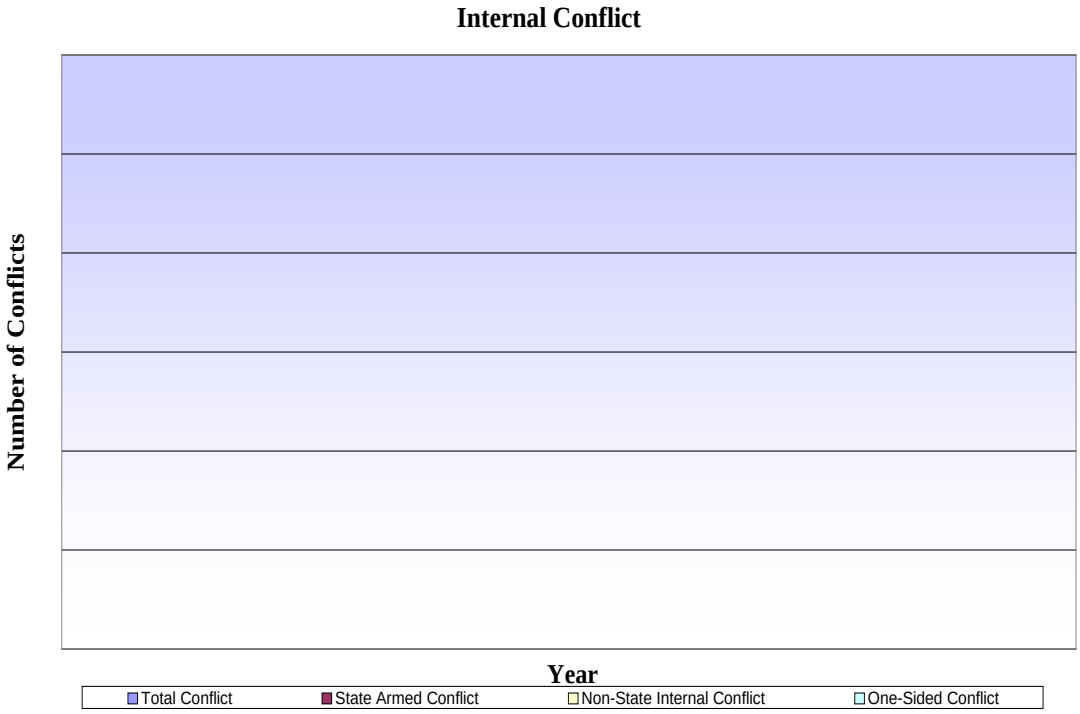

Figure 5. Sample Internal Conflict Data Chart
Source: Created by author.

Final Step: Analyze and Apply Data to Longitudinal Case Studies of Internal Conflict

After compiling the data into charts, the quantitative analysis will begin by visually examining them for longitudinal trends. Using these charts, the quantitative analysis will seek to answer the primary and secondary research questions by investigating whether the data for the incidence of conflict depicts an increase or decrease in relation to annual changes in the value of opium, in the national GDP, and in the proportional value of opium in the national economy. This analysis will treat economic data as a leading variable and the incidence of conflict as a lagging variable.

After answering the primary question through quantitative analysis of the data, this study will conclude with a qualitative analysis of the results. This qualitative analysis will use brief case studies selected from the initial literature review. An initial review of the literature indicates that either Burma or Afghanistan has acted as the leading world producer of opium during the entire time period of the study. Therefore, the qualitative analysis will focus on applying the results of the quantitative analysis to case studies of Burma and Afghanistan. The case studies will highlight similarities and differences relating back to the analysis of the data.

In conducting these brief case studies, the qualitative analysis will consider whether and, if so, how governance affects the results. This research will not use governance as a selection criterion for the quantitative analysis, nor will it pre-determine whether governance has any significance. However, as applied to qualitative analysis it will conduct, the evaluation will take into account the quantitative ranking of the governments on a scale of their democracy versus autocracy. The Polity IV Project will provide the governance information for this evaluation.[10] The regime categorization of

the ruling governments in major opium producing nations may provide additional value in assessing whether polity influences the likelihood of conflict and atrocities.

Threats to Validity

Precision of Data

This research will assume that the records and databases of the UNSD and UNODC–which international governmental and nongovernmental organizations around the world regularly rely on–have sufficiently accurate and unbiased data to reliably determine the estimated volumes and U.S. dollar values of opium commodities and national GDPs during the period covered. Although the criminality and secrecy inherent in the illicit opium trade creates the potential for statistical error, this research may reliably treat this error as *de minimis* in light of the excessive volumes and dollar values associated with the illicit opium trade. Further, UNODC and UNSD both rely upon a variety of sources to compile their data. As a result, differences in sampling techniques may create the possibility for internal bias with respect to content validity of the sourced databases.

Controls and Analysis

As with similar research on conflict analysis, the inability to control for other variables will make it impossible to establish a clear numerical cause and effect relationship. This threat will affect the quantitative analysis. Additionally, the preferred methodology would use three or more case studies, however brief. Using two cases studies may pose a threat to validity in the qualitative analysis. However, data limitations

inherent in the research topic and limited available data will make further case studies impracticable.

Conclusion

This research methodology will allow for a thorough analysis of the economic impact of opium production on conflict in Chapter 4. It will properly identify nations with a GDP that reflects a comparatively substantial opium economy. The quantitative analysis will examine the potential of increased opium production as a predictor of increased internal armed conflict and, therefore, atrocities. The qualitative case studies will provide insight into how and why atrocities occur with such prevalence in opium producing regions.

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[1]Collier, *Natural Resources, Development and Conflict*, 2.

[2]For example, a very limited and narrow test of the economic impact of drought on civil peace in Africa should reliably test only the conflict mechanism of interest. Bethany Lacina, "Insights from macro studies in the risk of civil war," *Resources, Governances and Civil Conflict*, edited by Strøm and Öberg (London: Routledge, 2008), 23.

[3]Reiterating, raw production includes only the value of raw materials for export or internal consumption.

[4]This data set consists of a complete and consistent time series, from 1970 onwards. Its contents use official data reported in annual National Accounts Questionnaires, supplemented with estimates for years with incomplete official data. The final aggregates are provided in United States dollars, normalized to a 2005 constant. GDP is the main aggregate. The database is the product of global cooperation efforts, between UNSD, international statistical agencies, and the national statistical services, to compile the most recent reliable and verifiable available data on national accounts. UNSD, National Accounts Main Aggregates, http://data.un.org/DataMartInfo.aspx#SNAAMA (accessed June 1, 2012). Additional information on methodology is available at UNSD, http://unstats.un.org/unsd/snaama/methodology.pdf (accessed June 1, 2012).

[5]Note that the UNODC uses similar methodology for the data in its World Drug Reports, first relying upon its Illicit Crop Monitoring System, then on a compilation of data from the United States and reports from assessed nations. UNODC Statistics, http://www.unodc.org/unodc/en/data-and-analysis/statistics/index.html (accessed June 1, 2012).

[6]The local value varies not regionally, but nationally, based on a variety of factors. It normally falls within 100-500 US$/kg. At the extreme end, the local value of raw opium at ~2000 US$/kg in the Mexican economy equated to nearly twenty-five percent of total farm-gate global opium revenue even though Mexico only contributed one-half a percent of the total global opium production. Paul Reuter, "Can Production and Trafficking of Illicit Drugs be Reduced or Merely Shifted?", *Policy Research Paper 4564*, World Bank Developmental Research Group, March 2008.

[7]This data set covers internal armed conflict from 1946 to the present. The data collected by UCDP has been published in the *Journal of Peach Research* since 1993 and used by the Stockholm International Peace Research Institute (SIPRI) since 1988. Established in 1966 and consistently rated as one of the leading non-U.S. think tanks in the world, the SIPRI is an independent institute that works closely with both the United Nations and European Union. SIPRI News Archive, http://www.sipri.org/media/news-archive (accessed June 1, 2012).

[8]Ibid.

[9]As established in the definitions, limitations and delimitations, and for consistency with the UCDP database, the "start" and "termination" of conflict occur when battle-related casualties from a particular conflict respectively exceed or fail to exceed twenty-five casualties in a calendar year. UCDP, Conflict Encyclopedia Definitions, Uppsala Conflict Data Program, Department of Peace and Conflict Research, Uppsala Universitet, http://www.pcr.uu.se/research/ucdp/definitions/ (accessed June 1, 2012).

[10]Marshall, *Polity IV Project*.

CHAPTER 4

ANALYSIS

Introduction

This chapter presents the data and analysis for the question: If a nation's Gross Domestic Product (GDP) reflects an increase in illicit opium production, does an increase in internal armed conflict also occur? The subordinate questions to answer the primary question investigated the outer limits and variance of the results, asking: Will internal conflict only increase at a certain minimum ratio of opium production to GDP? If it exceeds a certain percent of GDP, will internal conflict actually decrease? Does the impact of opium production vary under different regimes? The findings from the data and analysis answer the primary question, addressed at the conclusion of these findings.

Data Collection

Data Collection Sources

The availability of data from the United Nation's Office on Drugs and Crime (UNODC) limited initial data collection to Afghanistan, Burma, Colombia, Laos, and Mexico.[1] The data compiled for these nations' included: annual GDP in constant 2005 United States (U.S.) dollars, maintained by the United Nations Statistics Division (UNSD); annual metric tons of opium production from poppy crops and the local 2005 price per kilogram for raw opium in U.S. dollars, reported by the UNODC; and annual frequency of internal conflict, developed by Uppsala Conflict Data Program (UCDP).[2] The frequency of internal conflict included the sum total of three UCDP databases

covering state-involved internal armed conflict, non-state internal armed conflict and one-sided internal conflict.[3]

Although the available conflict and GDP data dates back into the 1960s, the time span for the data collected did not cover the full thirty year period from 1980 to 2010 due to limitations encountered in retrieving reliable opium production data for earlier dates. Instead, the data begins at the earliest year of available, reliable and consistently reported drug production data for each nation. These years begin at: 1985 for Afghanistan, Laos and Mexico; 1988 for Burma; and 1994 for Columbia.[4] Appendix A contains the data as collected from the UNSD database. Data obtained for incidents of conflict is available from the UCDP Datasets.[5] Data for opium crop production and values obtained from the UNODC annual World Drug Reports and Crop Monitoring reports is available from UNODC.[6]

Data Calculations

From this raw data, the final data compilation included additional calculations for the monetary value of the raw opium and for the yearly ratio of this value in comparison to the nation's annual GDP. The first calculation to obtain the opium value converted the local per kilogram prices to per metric ton prices (1000:1), then took the volume of raw opium produced in metric tons and multiplied it by the local per metric ton price for each country during each year. The second calculation to obtain the ratio for the value of opium to the value of GDP simply divided the annual data for the opium value by annual data for GDP. The data set represents this calculation as a percentage. Appendix B contains the complete data set compiled for the research and used in the charts, including data not included in the analysis because of screening criteria.[7]

GDP and Opium Data

Screening Criteria

The initial screening criteria in presenting the data began by limiting data to nations for which the United Nations monitors poppy growth for opium production. The presentation of the data below further screened the remaining data for nations in which the ratio for the value of opium did not exceed ten percent of the national GDP in at least one year during the period of the study. This screening criterion assumed that statistical significance would require a minimum threshold for the value ratio. Applying this screen resulted in removing data on Colombia and Mexico from the presentation and analysis.[8] Of note, the screened data appears to indicate that the minimum ratio threshold as a screening criterion resulted in discounting relevant data otherwise consistent with the longitudinal trends of the data analyzed in this chapter.

GDP and Opium Monetary Values

Afghanistan

Shown in Figure 6, Afghanistan's national GDP shows several distinct trends over the twenty-five years of the study. From an early high of nearly US$7 billion in 1986, it progressively decreased, bottoming out at US$2 billion in 1994. From 1994 to 1995, the national GDP sharply increased to US$4 billion, following the previous year's comparable market value increase in opium production to US$471 million. From 1995 to 2001, the economy one again continued to decline in spite of steady opium production, bottoming out for a second time at US$2.89 billion in 2001.

That same year, under the Taliban's eradication campaign, opium production fell to less than one tenth of a percent of what it had been during any of the previous seven

years of the economic decline. In the year following the 2001 eradication, the national GDP rapidly grew from less than US$3 billion to nearly $US5 billion, and continued to increase from that point onward. Opium production and its value also increased up to 2007, when U.S. supported crop eradication and crop substitution programs finally brought about a steady decrease. Figure 7 shows that, in spite of the decrease in overall value of opium production as of 2010, the adjusted U.S. dollar value of opium production for that year, nearing US$500 million, still exceeds the adjusted U.S. dollar value for any year prior to 1999.

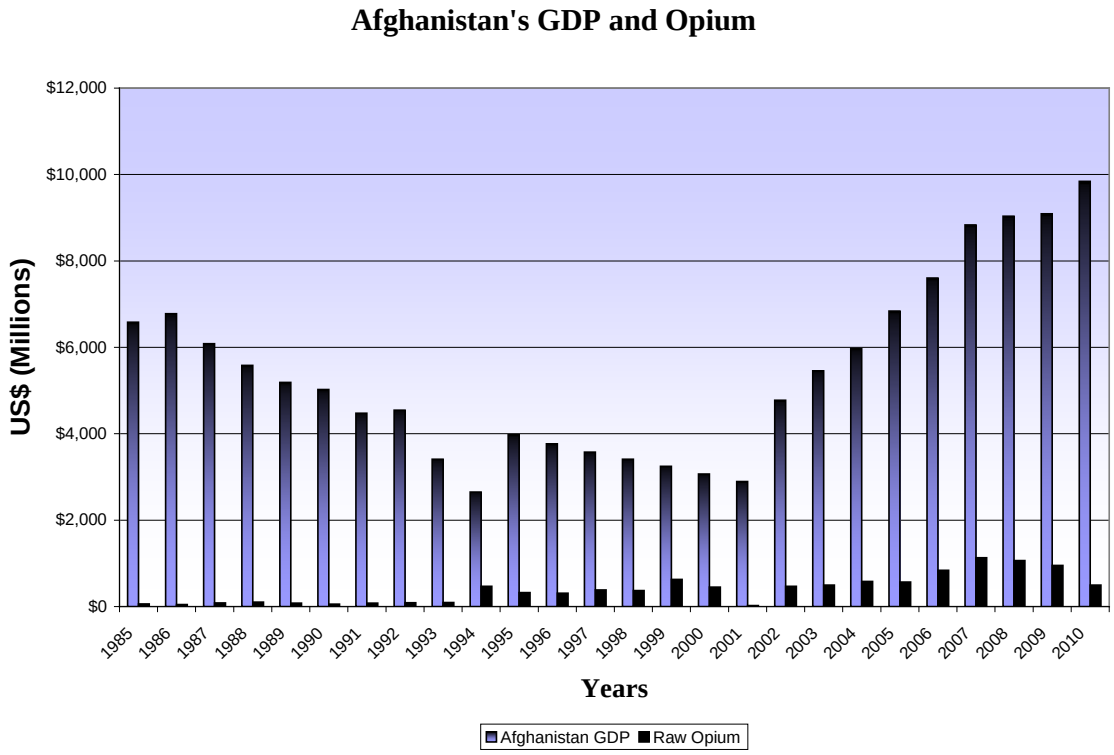

Figure 6. Afghanistan's GDP and Opium

Source: Created by author.

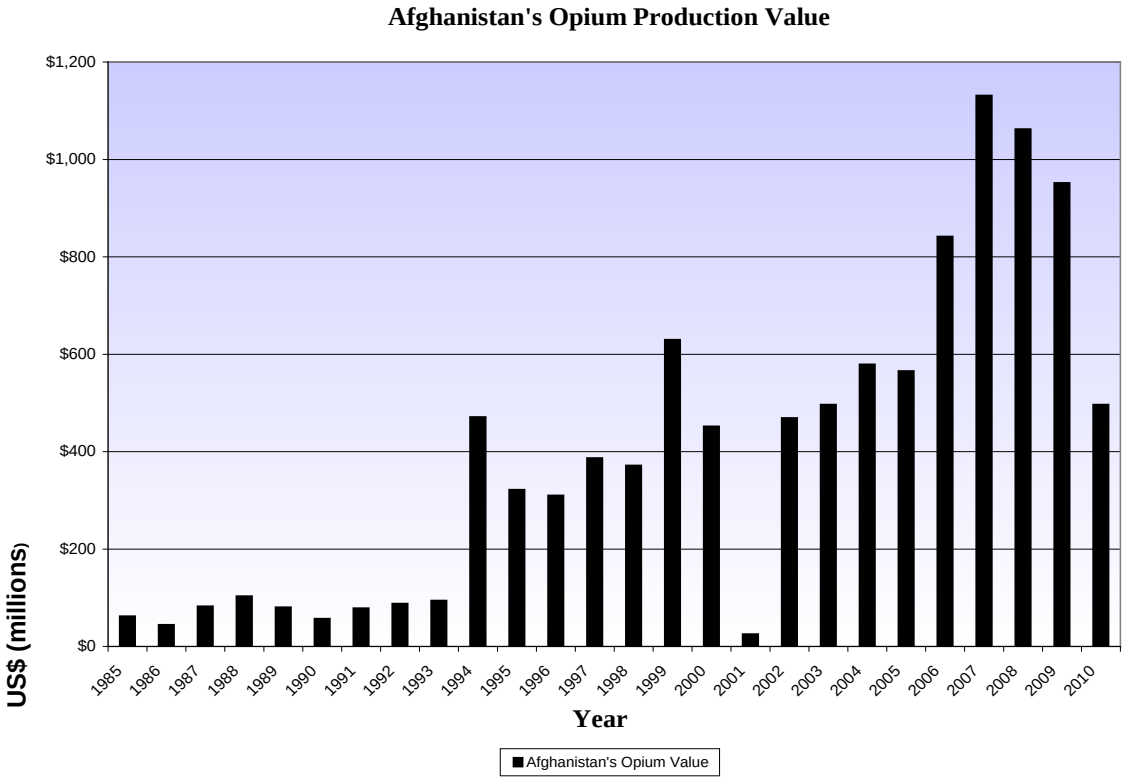

Figure 7. Afghanistan's Opium Production Value

Source: Created by author.

Burma

Figure 8 reflects Burma's annual national GDP growth from the 1990s onward, after the Burmese government finally began to change its restrictive economic policies.[9] The large numbers associated with GDP growth in comparison to smaller changes in opium values causes difficulty when presenting the data in a single chart for review. The disparity in the dollar values creates problems of scale. Figure 8 depicts both the value of GDP and the value of opium production for each year from 1988 to 2010. However, the growth of the Burmese national economy from 2000-2010 makes the comparative value of opium production for those years too difficult to distinguish. To better illustrate, Figure 9 breaks out Burma's opium production data into a separate chart.

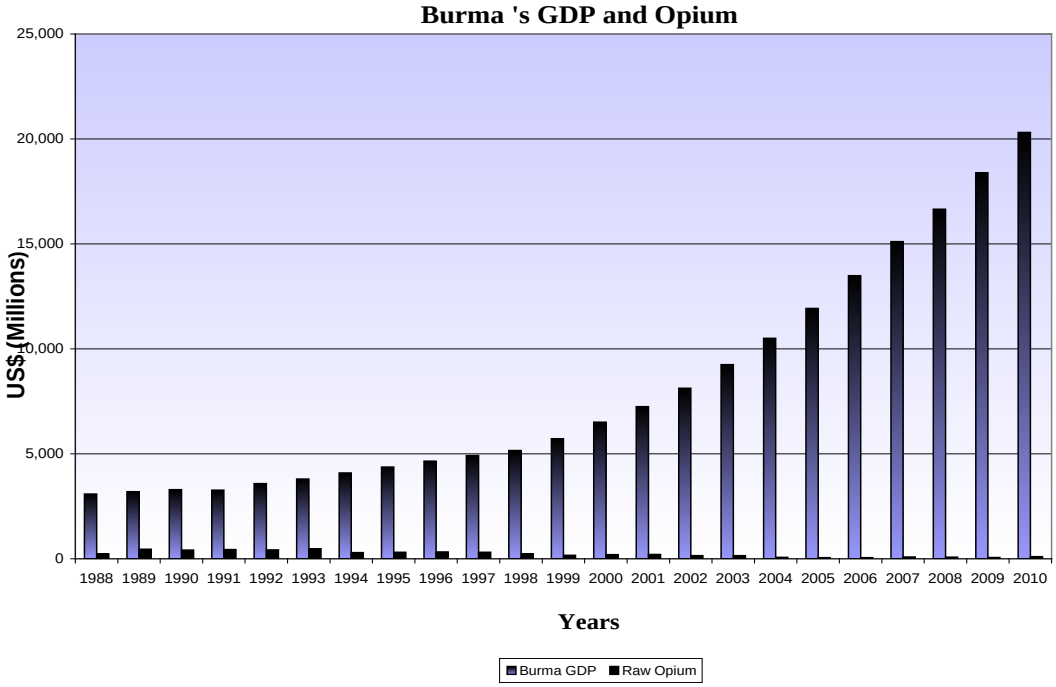

Figure 8. Burma's GDP and Opium

Source: Created by author.

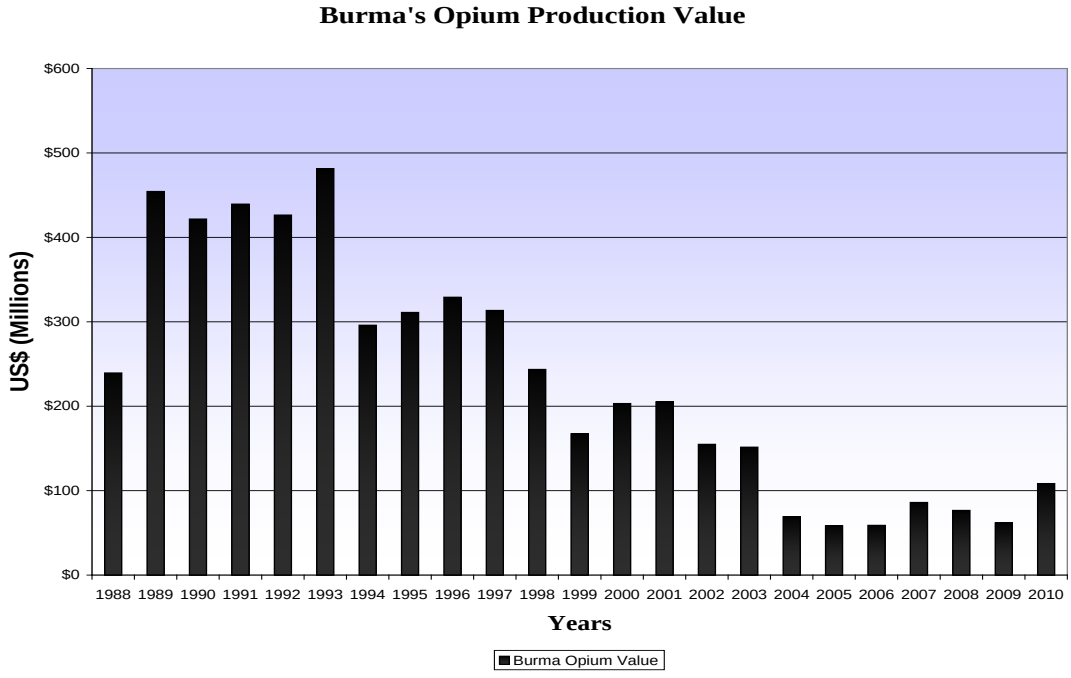

Figure 9. Burma's Opium Production Value

Source: Created by author.

From 1988 to 1989, Burma's opium production nearly doubled, as reflected in the opium income from that year. The income from opium remained in excess of US$400 million annually during the early 1990s, peaking at over US$480 million in 1993. In 1994, Burma produced less than have the metric tons of opium produced in Afghanistan. That year, the opium income dropped to less than US$300 million—a decrease of nearly US$200 million in a single year. After minor increases from 1994 to 1996, the profits from opium income began to drop again, decreasing by approximately US$70 million between 1997 and 1998, and US$80 million between 1998 and 1999. With the exception of a US$40 million increase in 2000 that held steady the following year, this downward trend continued until 2007. By 2006, the opium production value had dropped to below US$60 million. In 2007, however, it increased by nearly fifty percent of the previous year's value, reaching US$86 million. After comparatively minor decreases from 2007 to 2009, the value of opium production once again skyrocketed, breaking US$100 million for the first time since 2003.

Laos

After a period of stagnation during the 1980s, the annual GDP in Laos had its first two notable increases in the years 1989 and 1990 and made continual annual increases from that point forward, as shown in Figure 10. Meanwhile, the nation's raw opium production also increased to a high peak in 1989, at an adjusted value of US$19.8 million and then steadily decreased. By 1993, the adjusted value of opium production had fallen to US$9.37 million. With one notable exception in the year 2000, the adjusted value averaged US$7 million or less from 1994 until another sharp drop in 2004.

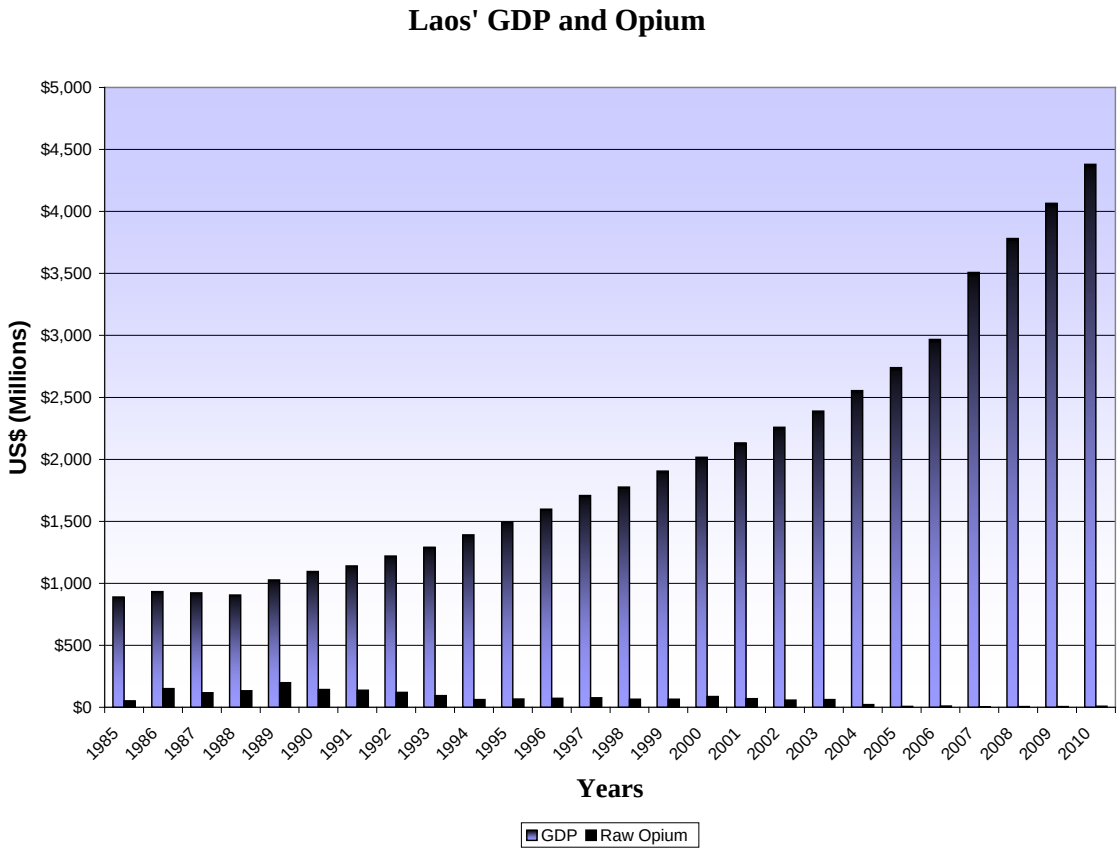

Figure 10. Laos' GDP and Opium

Source: Created by author.

GDP and Opium Ratios

Afghanistan

Figure 11 contains the annual data showing the value of Afghanistan's opium production in relation to the total national GDP. Prior to 1994, opium production did not comprise a significant percentage of export income in relation to Afghanistan's total national economy. In 1994, it jumped up to eighteen percent from less than five percent the previous year, when raw export production finally reached a competitive level in the global opium market. As the temporarily improved Afghan economy of 1994 declined

from 1995 onward, opium profits had a sizeable relative value to the national economy at eleven percent in 1997 and 1998, fifteen percent in 2000, and a high of nineteen percent in 1999. The ratio anomaly of 2001 resulted from the near total poppy eradication that year—the same time the GDP reached a low-point following the 1994 surge. From 2001 on, the GDP steadily rose, and the opium ratio hovered between eight to thirteen percent until 2010, to include rising from 2005 to 2007 in spite of increased eradication efforts.[10]

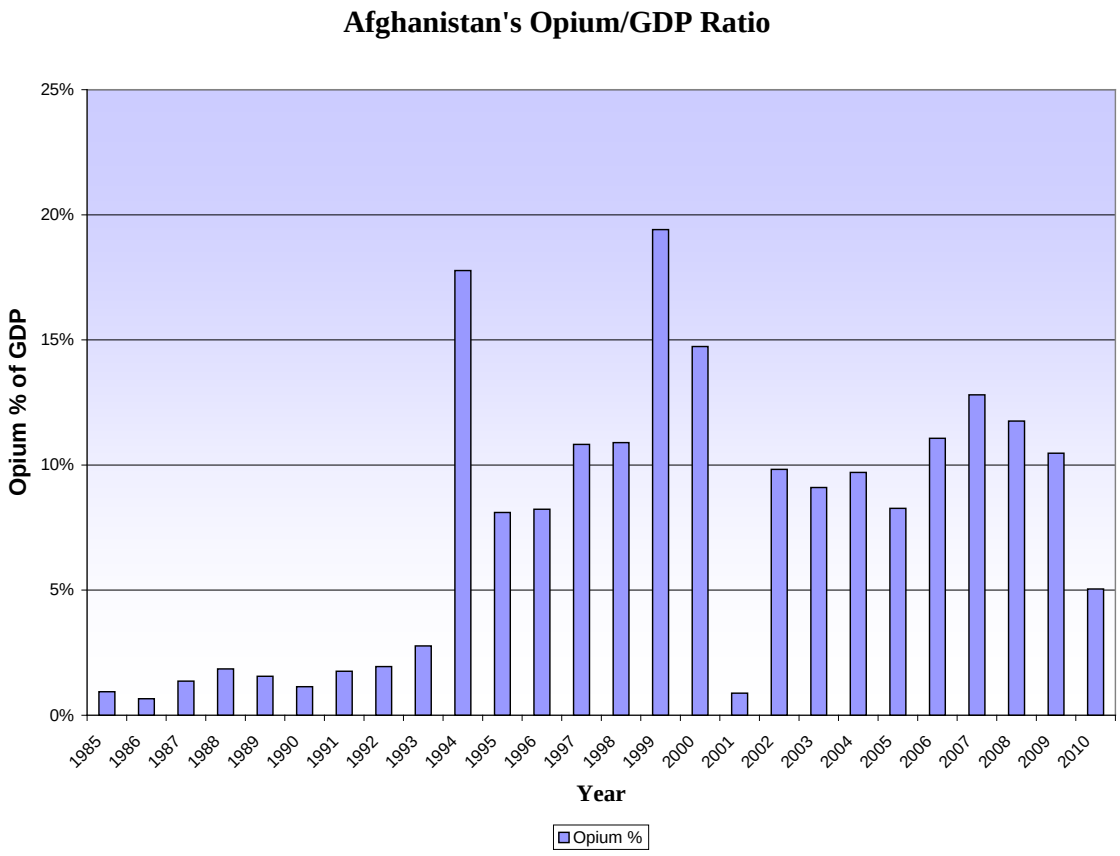

Figure 11. Afghanistan's Opium/GDP Ratio
Source: Created by author.

Burma

Following the 1988 military coup by the State Law and Order Restoration Council (SLORC), the relative value of opium production in the Burmese economy increased by five percent to an all-time high of fourteen percent. Shown in Figure 12, the proportional value of opium production in comparison to Burma's annual GDP remained at or above twelve percent from 1989 until 1994, when Afghanistan entered the market as a major producer at the same time that Burma suffered lower crop yields as a result of poor weather.[11] With the exception of only three years, the relative value of opium in the Burmese economy decreased after 1994. It never even exceeded five percent after 1998. In spite of a minor increase in 2000, the ratio decreased to less than one percent in 2005 and remained below one percent, with the exceptions of 2007 and 2010.

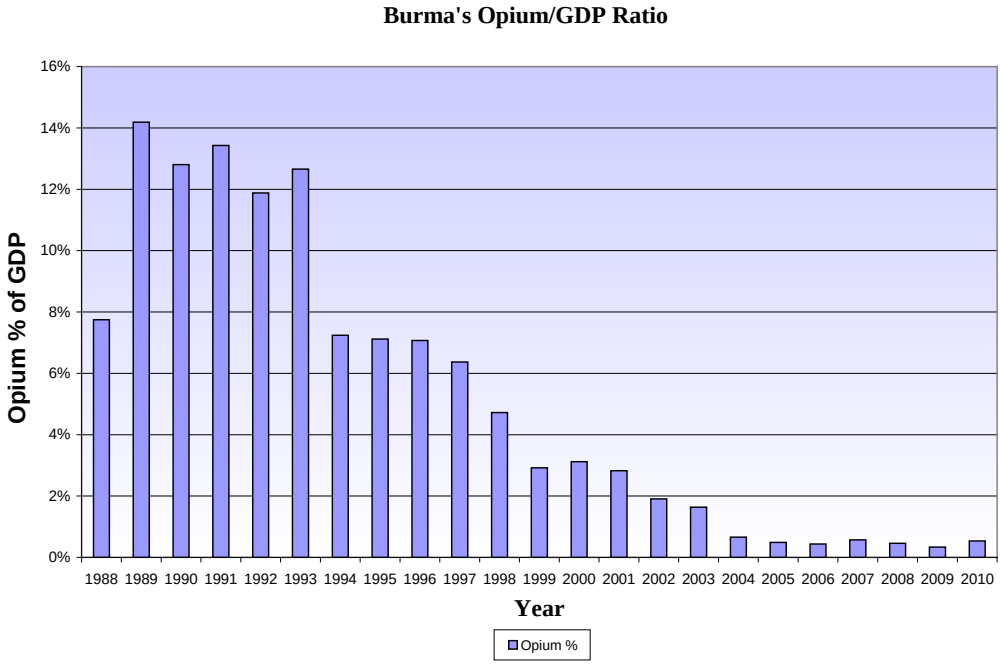

Figure 12. Burma's Opium/GDP Ratio

Source: Created by author.

Laos

From 1986 through 1990, the ratio of the opium value to Laos' GDP consistently exceeded ten percent. It only dropped below fifteen percent twice during this time. Figure 13 demonstrates these changes. Between 1987 and 1988, the ratio made a notable drop from sixteen percent to thirteen percent. After reaching a high point of nineteen percent in 1989, it again dropped below fifteen percent in 1990. From 1990 on, it continued to decrease annually with only minor fluctuations. By 1994, it had dropped below five percent. As of 1999, it had reached a new all-time low of three percent and never again surpassed three percent, with the notable exception of a small spike back up to four percent in 2000.

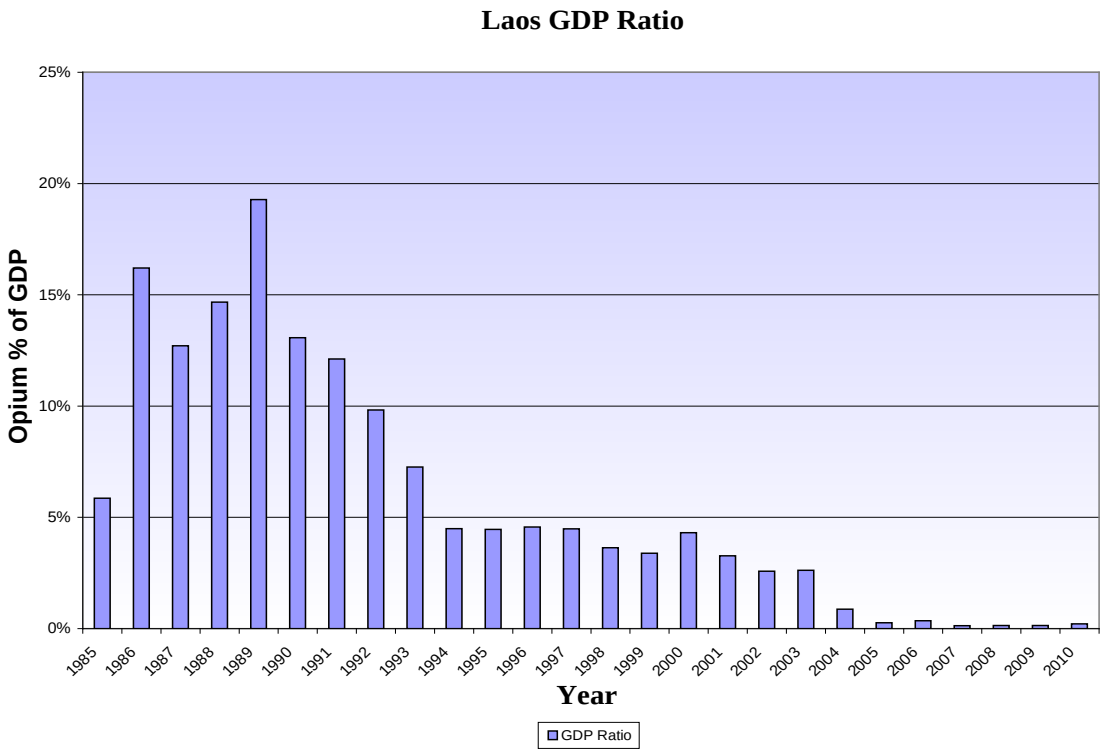

Figure 13. Laos' Opium/GDP Ratio

Source: Created by author.

Conflict Data

Presentation

The conflict data charts in this subchapter provide information on the total number of conflicts that occurred per year. Discussion of this data will address conflicts by type where applicable.[12] A conflict that lasted more than one year counted individually for each year that it continued. Conflicts involving multiple factions only count for a single conflict for instances where those factions fought as allied parties. The types of conflict contained in the data include all internal conflicts in which the state, all non-state conflicts between two internal armed forces, and all one-sided conflicts of an armed force against civilians. Instances of conflict only counted for the yearly total if battle related deaths exceeded twenty-five, to include casualties from civilian collateral damage.

Afghanistan

Total Conflict

Shown in Figure 14, Afghanistan had at least one ongoing conflict during the entire period. Conflict increased starting in 1989, hitting a high in 1996. From 1996 to 1998, conflict decreased. Spikes of increased conflict occurred in 2004, 2006 and 2010.

Conflict Types

Types of conflict in Afghanistan have fluctuated in complex progressions over the past few decades. To better understand how conflict in Afghanistan might relate to opium production, it helps to break conflict down into (1) state-involved internal armed conflict, (2) one-sided conflict, (3) and non-state internal armed conflict. State-involved internal

armed conflict occurred every year with the exception of 2002, and rose from one to two internal conflicts per year after 2007. Factional involvement in this conflict progressively decreased or consolidated from 1984 until 2007.[13] Prior to 1997, Afghanistan had no documented one-sided conflicts.[14] As of 1997, at least one known and documented one-sided conflict occurred every year thereafter with the exceptions of 2002 and 2003.[15] From 1997 to 2001, the Taliban-dominated Government of Afghanistan perpetrated these actions. From 2004 onward, the Taliban continued this trend.

Factional involvement in non-state conflict has varied at different points in time. At least some non-state conflict took place annually from 1989 through 1997. Data for 1998 to 2001 and 2007 to 2009 show voids in conflict. Peaks in conflict occurred in 1990 and 1991, from 1994 to 1996 (the high point of non-state conflict), and again in 2002.

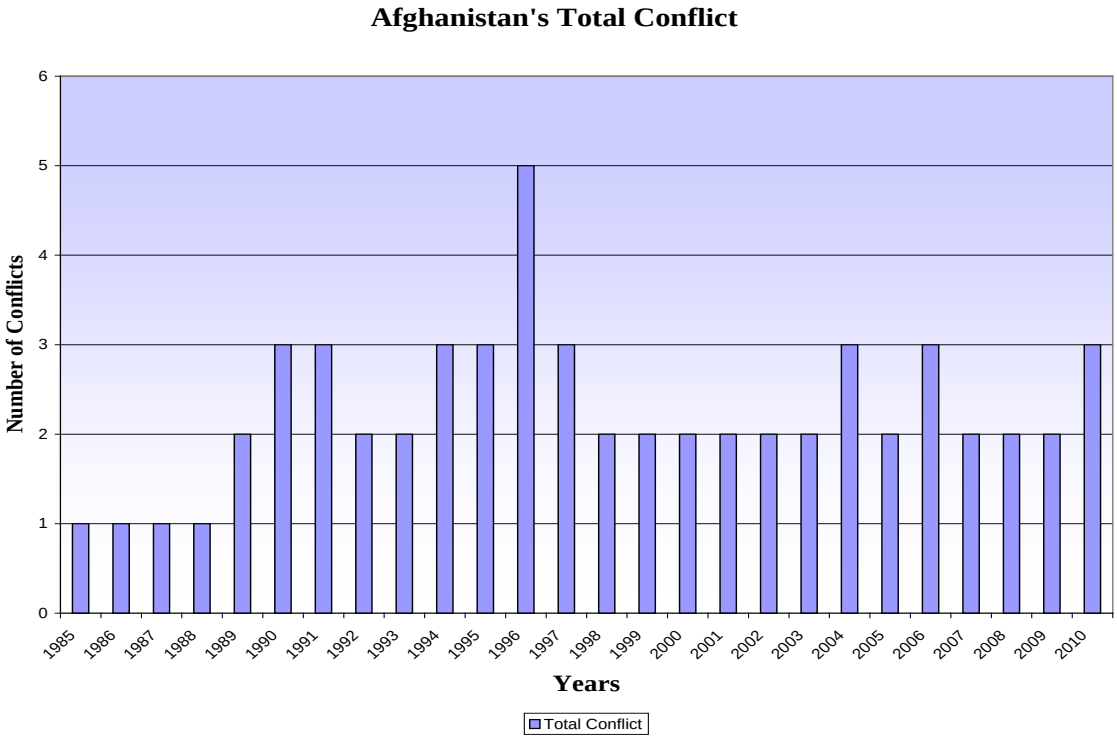

Figure 14. Afghanistan's Total Internal Conflict Data
Source: Created by author.

Burma

Total Conflict

Figure 15 shows that the highest total conflict in Burma took place from 1990 to 1992. Conflict hit a unique low point in 1993. Conflict from 1994 to 2001 had peaks in 1996, 1998 and 2000. The lowest period of conflict covered 2001 to 2004, with the latter being the only year without documented conflict. After the 2004 low point, conflict increased dramatically during 2005, reaching five documented conflicts for the first year since 1996. From 2005 on, conflict persisted at moderate levels with the only notable decrease in the years following 2005 and 2007.

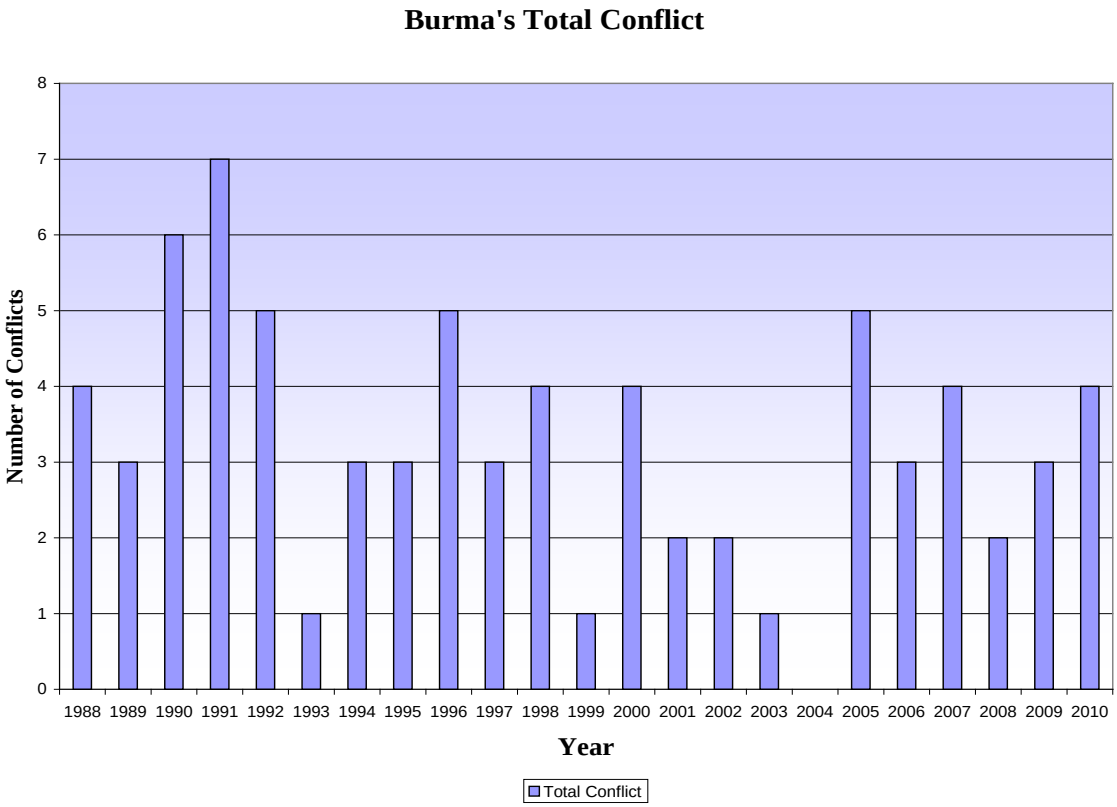

Figure 15. Burma's Total Internal Conflict Data

Source: Created by author.

Conflict Types

From 1988 until 1997, state involvement in internal armed conflict consistently remained high with the notable exception of a drop to only one armed conflict during 1993. For three years, from 1997 to 1999, state-involved conflict dropped annually, but increased again in 2000. State conflict remained steady for the next three years, then dropped following 2002 and 2004. After 2004, the only year during which the state did not participate in documented armed conflict, state conflict increased to levels not seen since 1997. Although state conflict dropped slightly in 2006, it rose again in 2009 and remained high through the end of the study.

With the exception of armed action by the Karen National Union in 1991, the Burmese government committed all other UCDP documented instances of one-sided conflict. These conflicts appeared in time-related peaks. The time peaks of one-sided conflict covered 1991 to 1992, 1996 to 1998, 2000 to 2003, 2005 to 2007 and 2010. With the exception of two periods from 1993 to 1994 and 2008 to 2009, the absence of government one-sided conflict never lasted longer than a single calendar year. No more than one documented conflict occurred per year, although the numbers of civilian fatalities exceeded one hundred deaths for more than fifty percent of the one-sided government conflicts.[16]

Sporadic non-state internal armed conflicts occurred from 1990 through 2007, limited to one documented non-state conflict in any year. The majority of non-state conflict occurred during the 1990s, with one each in 1990, 1991, 1995, 1996, and 1998. After 2000, the only other two non-state conflicts took place during 2005 and 2007.

Laos

From 1985 through 1990, Laos consistently had an ongoing conflict with one exception. Conflict ceased in 1988, shown below in Figure 16. Conflicts from 1985 to 1987 involved cross-border disputes between Laos and Thailand in areas inhabited by the Hmong tribes and used for poppy cultivation.[17] After 1990, the only other internal conflict data occurred in 2000 and 2006. The 2000 conflict occurred at the beginning of the government's five year "Balanced Approach to Opium Elimination" program.[18] The 2006 one-sided conflict occurred as a result of election violence, with the government killing approximately seventy-five civilians in the process of suppressing election protests.

Figure 16. Laos' Total Internal Conflict Data
Source: Created by author.

Analysis and Findings

Afghanistan

Findings

For Afghanistan, conflict appeared to increase either after the relative value of opium in the national economy changed or after the actual dollar value of opium increased. The lead-lag time period to observe this relationship varied depending on state involvement in the conflict. Meanwhile, when GDP increased at a disproportionately high rate in comparison to an increase in opium production, following years had a closely associated increase in conflict. The non-state internal conflict that occurred between warring factions in the post-Soviet era significantly decreased once the Taliban rose to

power, at the same time when opium's relative economic value in the national economy soared.

Governance

With respect to changes in conflict under the Taliban government, the Polity IV Project classified the Taliban as having a highly autocratic rule, mired in tribal politics and Islamic theocracy.[19] The Taliban instituted severe restrictions on political freedoms, banned other political parties, and harshly discriminated against women and religious minorities.[20] In 2001, the Taliban also conducted an unparalleled, massive opium crop eradication. Allegedly using severe religious admonishments and threats of prison, they decreased annual poppy production by over 94 percent in a single crop season—no other UN member nation had previously, or has since, conducted such a successful eradication program in any growing region under any other type of government.[21] Collectively taking into account the Taliban's strict autocratic governance, the decrease in non-state conflict, and the unequaled opium crop eradication of 2001, the Taliban appears to have possessed the ability to regulate opium production, provided they had the will to do so, and the power or influence to reduce factional conflict.

State-Involved Conflict

Afghanistan endured ongoing state-involved armed conflict for all years during the period of this study with the exception of 2002. This exception occurred the year after opium production fell to a negligible value as a result of the Taliban's 2001 eradication campaign. Also following the eradication in 2001, the national GDP began its first upward trend in over fifteen years. From 2004 through 2007, the actual dollar value of

opium increased annually; however, the ratio of opium's value within Afghanistan's national economy decreased in 2003 and 2005. The significance of these two years had an association with notable increases in state-involved conflict in the years following the change in the ratio. From 1997 onward, the only increases in state-involved conflict occurred during 2004, 2006 and 2010. The anomalous, radical state eradication constituted a statistical outlier and created difficulty in assessing its impact from 2001 to 2003, although the year following the eradication saw the one and only cessation in state-involved armed conflict.

Otherwise, state involvement in internal armed conflict appears to increase in years following an increase in opium production's actual dollar value but a decrease in proportional value compared to total national GDP growth. When national economic growth outpaces the relative value of a raw commodity, it skews the apparent value of the income.[22] The shift in wealth distribution creates an appearance of perceived-relative economic disparity for those who rely on the income from that raw commodity.[23] In spite of increasing raw opium production and, therefore, actual dollar income, those dollars do not result in an equitable increase in wealth compared to other economic growth. Although both GDP and opium value increased, the national economy's growth rate outpaced monetary growth from the value of increased raw opium production. When this associated change occurred, conflict increased the following year. This trend conforms to the economic conflict analysis theory of perceived-relative disparity.

<u>One-Sided Conflict</u>

In the six years leading up to the Taliban's 2001 eradication, Afghanistan's economy had experienced a progressive downturn. Opium value in terms of the total

wealth in the economy increased as the economy fell. In 2000, after years of increasing opium values, the overall value of opium produced in Afghanistan dropped by approximately US$180 million. Its income value in comparison to the national GDP dropped by a significant four percent.

The year of the Taliban's 2001 massive eradication, opium crops had negligible value in Afghanistan's economy. Notably, the only two years without documented one-sided armed conflict occurred immediately following the 2001 eradication. Further, although the total market value of opium in 2002 increased in comparison to 2000, its relative economic value dropped from fifteen percent to 10 percent. The large-scale removal of opium poppies from the Afghan economy had an observable association with the decrease of one-sided conflict committed by the Taliban.[24]

Non-State Internal Armed Conflict

Breaking Afghanistan's non-state internal armed conflict into specific time periods helps clarify the conflict trends in respect to changes in GDP and opium production. Afghanistan suffered a consistent period of non-state conflict from 1989 until 1997. During this time period, the relative value of opium to GDP increased in both 1988 and 1989, and conflicts peaked two years later in 1990 and 1991. In 1990, the ratio dropped, and conflict decreased two years later in 1992. Then, from 1992 to 1994 when the ratio increased again, conflict increased from 1994 to 1996. The ratio peaked at eighteen percent in 1994, and non-state conflict peaked in 1996, the highest single year of conflict during the entire period of the study.

After the 1997 takeover by the Taliban, the previously on-going non-state internal armed conflict ceased. Documented non-state internal armed conflict remained in

abeyance for the duration of the Taliban's rule—a period of four years, until the U.S.-backed overthrow of the Taliban at the end of 2001.[25] While the Taliban's autocratic governance demonstrably impacted the incidence of factionalized conflict, these same years marked the highest collective period of national economic reliance on opium income–an income that the Taliban had the apparent ability to control, as evidenced by the 2001 eradication. Opium had an economic value ranging from ten to nineteen percent of the total value of the national economy from 1997 to 2000.[26] The reduction in factional conflict, at a time when a raw commodity comprised a substantial value relative to the total national economy, and when the central government had the apparent ability to control this resource, aligns with Olsson's and Fors' findings in *The Prize of Predation* with respect to the government's use of primary export commodity income.[27]

In both 1999 and 2000, the relative value of raw opium production peaked again, hitting an all-time high of nineteen percent in 1999 and still exceeding fifteen percent in 2000. Following this rise in opium production, non-state conflict peaked once again in 2002. During 2002 and 2003, and in spite of the 2001 eradication, the relative value of opium to GDP dropped from previous years—and conflict dropped in 2003, then ceased in 2005. The resurgence of conflict in 2006 followed two years after a ratio increase in 2004, the first increase during the previous four years. The break in conflict from 2007 through 2009 during the U.S.-involved eradication appeared anomalous to the overall analysis. Likewise, the U.S. presence in Afghanistan since 2003, its participation in eradication efforts with the government of Afghanistan from 2007 onward, and the influx of foreign aid into Afghanistan following the Taliban's loss of central control, constituted

a level of foreign involvement that, in all likelihood, created an internal bias in the data from that period.

Burma

Findings

Conflict in Burma appeared to increase as opium production increases, even for a relatively minor relative value in terms of the total GDP growth. State-involved internal armed conflict had the most immediate, time-related association with the incidence of an increase in conflict. Meanwhile, one-sided conflict and non-state conflict had a similar association, but with a year lag between an increase in opium values before seeing an increase in conflict. Time lag appeared to diminish at smaller ratio values, for which conflict increased more immediately when factoring in the relative dollar amount from year to year. Opium production alone did not always increase conflict. However, conflict in Burma consistently increased in association with increased opium production, with only a few exceptions, for which closer examination of outside influences accounted.

State-Involved Internal Armed Conflict

As many as fifteen different rebel factions have opposed the SLORC since the Burmese-dominated military junta took power during the 8888 Uprising.[28] Some of these groups have sought actual secession while others simply wanted increased representation in a democratic federal government.[29] Since seizing control of the country, the SLORC government has traditionally viewed ethnic groups, religious groups and political dissidents with extreme suspicion. After rising to power, the SLORC made a regular practice of signing cease fire agreements with various rebel factions, in an apparent effort

to reduce state involvement in internal armed conflict.[30] Examining the years these cease-fire agreements took place, this practice did not generally appear to impact the incidence of conflict in Burma aside from a few exceptions.[31] Even during or following years with multiple cease-fires between the state and rebel factions, conflict increased on more than one occasion.[32]

With a few minor exceptions, trends in state-involved conflict followed a close association with trends in the value of raw opium production. Figure 17 illustrates this comparison. This chart adjusted data for state-involved conflict to a scale of 1:10,000,000 to visually represent the data while accounting for the difference between a single conflict versus dollar values for opium production in excess of US$100,000,000. Although this chart did not provide a precise method for measuring the disparate values, and decreased opium production dollar values skewed conflict data to appear artificially high after 2004, it realistically compared changes in both sets of data as they occurred over time.

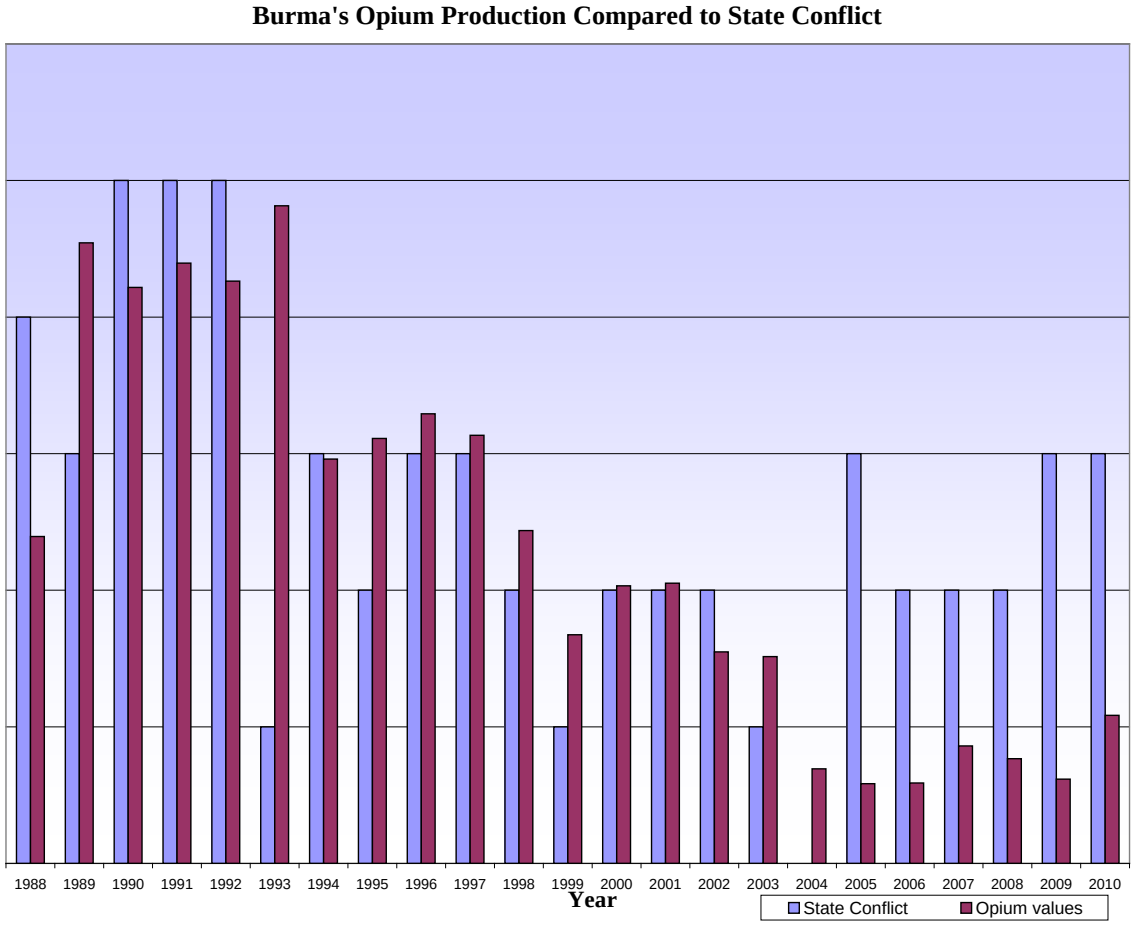

Figure 17. Burma's Changes in Opium Values Compared to State Conflict
Source: Created by author.

Comparing opium values to state-involved internal armed conflict, the peaks of conflict corresponded to peaks in opium values with little to no lag time. The temporary drops in state-involved conflict during 1993 and 1995 followed in the aftermath of several marginally successful cease-fire agreements with fractious elements in the Shan and Kachin states, where the majority of Burma's opium cultivation takes place.[33] Significantly, from 2004 onward, the relative value of opium in the Burmese economy fell at or below one percent. Although the actual dollar value hit a low point in 2004, it

has since risen. It climbed from US$58 million back over US$100 million with the largest increase in 2010. State-involved conflict has likewise increased since that time.

Looking at data for years with anomalous increases in state-involved internal conflict, factors external to opium production influenced state-involved conflict from 2005 through 2006. One major factor involved the 2005 movement of the state capital, discussed in more detail as it related to additional one-sided acts of violence committed by the state during that time. The reality that the state capital moved closer to primary opium cultivation region likely accounted for the increase in state-involved violence during at least 2005, if not including subsequent years.

Following the 2005 capital move, government-imposed delays pushed the planned 2010 elections back to 2012.[34] This decision resulted in heavy pressure from the National Democratic League internally, and from the majority of the outside world as well.[35] It increased overall instability in the national political climate. Along with these problems, the Burmese government has haltingly transitioned from a strict, military-dominated autocracy in the previous decade to a mixed regime, with some traits for democracy within a predominantly autocratic government system.[36] Allowing some freedoms, while restricting others, has resulted in increasing popular dissatisfaction with government policies and further increasing support for the democratic movement. For example, the increased openness of the market, privatization of internet services and other democratic reforms beginning in 2001 and 2002 under the authoritarian regime increased dissention and internal instability.[37]

One-Sided Conflict

With the exception of action by the Karen National Union in 1991, the ruling military junta of the Burmese government committed all acts of one-sided conflict during the study period. After taking power, the autocratic SLORC frequently came under fire for its methods of dealing with political dissidence, freedom of speech, ethnic minorities, and civilian non-combatants living in regions inhabited by rebel factions. From 1990 to 1991, the value of raw opium products increased by US$18 million. Although the ratio of opium's value in the Burmese economy increased only a fraction of a percent, the total relative value exceeded thirteen percent. In 1992, one year later, the first documented one-sided conflict by the SLORC occurred. The next documented one-sided conflict occurred in 1996, following a successive increase of US$15 million and US$18 million in the dollar value of opium production, respectively, in 1994 and 1995.

Although both the ratio of opium's value to GDP and the actual dollar value both dropped in 1997, one-sided violence still occurred in 1998. Significant internal and external economic forces other than opium production impacted the nation during the period from 1997 to 1998. In 1997, the Asian economic crisis hit, with ripple effects throughout the region, to include Burma—which had only recently begun to increase its openness to international trade.[38]

That same year, under the Narcotics Control Act, the U.S. initiated harsh trade sanctions against Burma for its role as a major narcotics exporter, the government's "ineffective" attempts at narcotics control, and underlying concern for allegations of gross human rights violations.[39] After the completion of the Yakama Natural Gas pipeline in 1998, France ceased all capital expenditures in Burma.[40] In 1997, to combat

the growing negative perception of the SLORC's "law and order" policies, the government changed its name to the State Peace and Development Council (SPDC).[41]

By 2000, the ratio value of opium in the Burmese economy had fallen below five percent. In spite of any impact resulting from the decreased national economic significance of opium production, both the relative value and actual value of opium production increased from 1999 through 2001. Although the relative value had increased by less than one percent per year, given the accelerated growth of Burma's economy compared to previous years, the actual dollar value had increased by US$40 million, after a stead decline since 1996. Documented one-sided conflict occurred in the years following this increase—in 2000, 2002, and 2003.

From 2003 to 2005, the ratio for opium value dropped from two percent, to one percent and, then, below one percent. In spite of this drop, and with no notable increase in the actual or relative value of opium until 2007, one-sided violence occurred. This increase in one-sided state action from 2005-2007, however, happened during the state's massive relocation of the administrative capital from Rangoon to Pyinmana.[42] The government undertook this move in spite of 2004 being the only year Burma had finally avoided documented conflict entirely.[43] At the time of the move, the government also elected to extend Aung San Suu Kyi's house arrest.[44]

At least for the years 2005 and 2006, the logical outcome of these actions would result in increased violence. For the violence from the 2005 capital move to extend beyond 2006 would seem unlikely. Of note, however, the one-sided violence that occurred during 2007 coincided with the first increase in opium production and its

relative value since 2001. In 2007, the actual dollar value of opium increased by forty-eight percent over the pervious year's value.

Looking at 2010 within the framework of the analysis above would allow for two possible conclusions for that year. The 2010 one-sided violence occurred once again after the first major increase in the value of opium production since 2007. The dollar value rose by US$47 million, an increase of seventy five percent over the previous year's actual dollar value. The ratio also rose above one percent for the first time since 2007. The associated change in conflict still followed the increase in both the value of opium and the ratio of opium to GDP.; however, repeated delays in the 2010 election process would still provide an alternative explanation.[45]

Non-State Conflict

Non-state conflict demonstrated the same trends as one-sided conflict, with the same exceptions. The documented non-state conflict years of 1998 and 2005 did not fit into the overall trend, but had the same external factors associated with their variance. For all years during which conflict increased, opium production and its relative value increased the year prior (not accounting for specific months) or, at a minimum, within two calendar years. After opium production increased in 1988 and 1990, conflict increased in 1990 and 1991. When opium production increased in 1994 and 1995, conflict again increased in 1995 and 1996.

In examining the increase in conflict that occurred in 2000, one notable thing happened in 1999. The relative value finally dropped below five percent in comparison to the value of the entire national economy. Production did not increase in 1999—but it did increase significantly, in actual dollar amount, in 2000. The same observation applied to

the conflict increase of 2007. From 2001, the next increase in opium production did not occur until 2007 when, as discussed previously with respect to increases in one-sided conflict, the dollar value rose by US$47 million. It increased seventy five percent over the previous year's actual dollar value and demonstrated the first relative value increase above one percent in over five years.

Laos

Analysis of the data from Laos strongly suggested an affirmative answer to the research question. A rise in conflict occurred when both the value of raw opium and the national GDP rose. When the relative value of opium dropped from sixteen percent in 1986 to thirteen percent in 1987, no conflict occurred the following year in 1988. When the relative value of opium dropped from nineteen percent in 1989 to thirteen percent in 1990, no conflict occurred in 1991. When opium production decreased while GDP rose, no other conflicts occurred for any year thereafter with the noticeable exceptions of 2000 and 2006.

During the 2000 conflict year, opium production increased significantly for the first time in over a decade and internal conflict occurred for the first time in over a decade. A minimum threshold did not appear necessary. Even with a ratio under five percent, an increase of a single percent in the ratio of opium coincided with the only subsequent instance of conflict in a twenty year period. Worth noting, although the ratio for the value of opium to national GDP remained at zero percent in 2006, opium production for that year nearly doubled from the previous year.[46] Given that the 2006 one-sided conflict occurred as a result of election violence, it sits as an outlier.

Summary

This chapter presented the data and findings from research examining whether changes in national GDP and raw opium production have an association with changes in internal conflict. The primary question asked whether GDP growth and increased opium production, together, had an observable longitudinal relationship with increased internal armed conflict. From an analysis of the data, changes in conflict appeared closely associated with changes in raw opium production. Detailed case analysis of particular types of conflict in Afghanistan and Burma suggested an overall consistency in this trend regardless whether the armed conflict occurred between the state and a faction, between two or more factions, or against.

The apparent association between increased conflict and increased opium production occurred as predicted when GDP rose, but also when it fell. Although this aspect of the data suggests that changes in GDP alone would not necessarily impact changes in conflict, it did not render GDP irrelevant in examining its contribution to the relationship between opium production and conflict. A positive result in testing the hypothesis appeared most consistently when national GDP rose at a substantially faster rate than the value of increased opium production. In other words, conflict increased when both GDP and opium values increased, but especially when the ratio of opium's value compared to GDP decreased at the same time. This result in the relationship between GDP and the opium economy suggested that, with respect to the potential impact of raw opium production on internal conflict, both the actual monetary value and the perceived relative value of opium production factored into the probability of increased internal conflict.

To assist in answering the primary question, the research also examined whether consistent results in the data would require a minimum threshold for the percent value of opium in comparison to the national economy. The data indicated that this association occurred without a minimum threshold for the ratio of opium to GDP, provided that an observable increase occurred in the value of opium production. Even at greatly reduced values of income from opium production, the impact of increases in opium production continued to appear significant in association with increased conflict.

Applying the screening criteria, the data analysis removed both Mexico and Colombia from consideration. This decision, based on the established research methodology, eliminated further meaningful inquiry into the supplementary question on the potential impact of governance on the results. During the vast majority of the time period studied, and with the exception of direct foreign involvement, autocratic rule or predominantly autocratic "mixed" government prevailed in Afghanistan, Burma and Laos. This self-imposed limitation effectively rendered moot any data which might have illuminated the relationship of governance to changes in the data.

Because this study limited the data collection to opium values in terms of per hectare crop production, the findings directly examined the relationship between raw opium poppy cultivation and the probability of increased conflict. The apparent association observed in answering the primary hypothesis also separated out the analysis of this relationship with respect to specific types of conflict. The findings revealed consistent, identifiable longitudinal trends of increased internal conflict involving the state, increased conflict between internal factions and increased one-sided conflict against civilian populations when opium production increased. The implications of these findings

support further investigation into the complexities of the relationship between illicit opium production and internal conflict. Increased efforts to improve the level of detail and availability of data would also assist in conducting a more precise statistical exploration of this relationship. The conclusion in Chapter 5 discusses the implications of these findings in greater detail, provides policy recommendations based on these implications and suggests avenues for further research.

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[1]Although UNODC also maintains some data on Pakistan, Thailand and Vietnam, it acknowledges that neither Thailand nor Vietnam has statistically significant opium cultivation. A simple reference to the past ten years of UNODC data shows that Pakistan also has a negligible share of opium cultivation. UNODC, World Drug Report 2011, 41, http://www.unodc.org/unodc/en/data-and-analysis/WDR.html?ref=menuside (accessed June 1, 2012).

[2]Ibid.; UNODC Illicit Crop Monitoring Program, http://www.unodc.org/unodc/en/crop-monitoring/index.html (accessed June 1, 2012); UNSD National Accounts Main Aggregates Database, http://unstats.un.org/unsd/snaama/selbasicFast.asp (accessed June 1, 2012); UCDP/PRIO Armed Conflict Dataset Version 4-2011, Uppsala Conflict Data Program, Department of Peace and Conflict Research, Uppsala Universitet, http://www.pcr.uu.se/research/ucdp/datasets/ucdp_prio_armed_conflict_dataset/ (accessed June 1, 2012); UCDP/PRIO Non-State Conflict Dataset Version 2.3-2011, Uppsala Conflict Data Program, Department of Peace and Conflict Research, Uppsala Universitet, http://www.pcr.uu.se/research/ucdp/datasets/ucdp_non-state_conflict_dataset_/ (accessed June 1, 2012); UCDP/PRIO One-Sided Conflict Dataset Version 1.3-2011, Uppsala Conflict Data Program, Department of Peace and Conflict Research, Uppsala Universitet, http://www.pcr.uu.se/research/ucdp/datasets/ucdp_one-sided_violence_dataset/ (accessed June 1, 2012). The complete data set used for the data, calculations and analysis also includes the hectares of land dedicated to poppy cultivation, collected crop survey reports by UNODC's illicit crop monitoring program. Depending on the region's climate, soil, rainfall, and other factors, a single hectare produces varying metric tons of raw opium. Calculations based on hectares show slight variation from total metric tons; however, the data for area under cultivation still displays the same trends as raw production.

[3]The data also included cross-border skirmishes between Laos and Thailand from 1985 to 1987 which took places in the opium growing region of the Golden Triangle and in which the conflict involved issues regarding the opium-growing Hmong hill tribes. UCDP/PRIO Armed Conflict Dataset, 2011. As coded by cross-border conflict is rare, with only three cross-border conflict IDs since 1980. UCDP/PRIO Armed Conflict Dataset Codebook, http://www.pcr.uu.se/digitalAssets/63/63324_Codebook_UCDP_PRIO_Armed_Conflict_Dataset_v4_2011.pdf (accessed June 1, 2012). All but one cross-

border conflict from the 1970s and 1980s involved border disputes between nations in the Golden Triangle region (in proximity to the lands of the Shan State), with the final conflict involving Laos. After that point in time, cross-border conflict did not occur for nearly twenty years (in Eritrea). UCDP/PRIO Armed Conflict Dataset Version 4- 2011.

[4]Although Colombia had long produced coca in large amounts for cocaine, monitoring Colombia's opium production did not gain momentum until estimates from the United States in the early 1990s indicated a trend in increased production. United States Department of State Bureau for International Narcotics and Law Enforcement Affairs, "International Narcotics Control Strategy Report," March 1995, http://dosfan.lib.uic.edu/ERC/law/INC/index.html (accessed June 1, 2012). Although the INCSR contains some earlier data for Colombia, the substantial year-to-year variation from early reports indicates that early data on Colombia's opium production was unreliable. Chronic civil war and the isolationist policies of the Burmese government prior to the 1988 overthrow by the ruling military junta significantly limited international access to its data. Historical research, as addressed in the literature review, confirmed that Burma's place as the leading global opium producer held from the 1950s until the 1990s, when Afghanistan surpassed it.

[5]UCDP/PRIO Armed Conflict Dataset Version 4- 2011; UCDP/PRIO Non-State Conflict Dataset Version 2.3- 2011; UCDP/PRIO One-Sided Conflict Dataset Version 1.3- 2011.

[6]UNODC, Data and Analysis, htttp://www.unodc.org/unodc/en/data-and-analysis/index.html?ref=menuside (accessed June 1, 2012).

[7]All charts were built using data compiled in Appendix B which collected data as follows: all conflict came from the UCDP datasets for armed conflict, non-state conflict and one-sided conflict; GDP data came from UNSD, and drug data came from UNODC—except when UNODC data was not available, in which case it came from U.S. Department of State INCSRs. UCDP/PRIO Armed Conflict Dataset Version 4-2011; UCDP/PRIO Non-State Conflict Dataset Version 2.3-2011; UCDP/PRIO One-Sided Conflict Dataset Version 1.3-2011; UNSD National Accounts Main Aggregates Database; UNODC World Drug Report 2011; UNODC Crop Monitoring Program 2000-2010; U.S. Department of State INCSR 1995 and 1996.

[8]A cursory analysis of data for Colombia and Mexico appears to follow the same trends in spite of their substantially larger GDPs.

[9]U.S. Embassy Rangoon, *Country Report on Economic and Trade Practices /Commercial Guide*, 1996.

[10]United Nations Office on Drugs and Crime, *Afghanistan Opium Survey*, UNODC Illicit Crop Monitoring Program, 2002, 2006, and 2007.

[11]U.S. Department of State, "South East Asia and the Pacific: Burma," *International Narcotics Strategy Control Report 1996*, 1996.

[12]The infrequency of conflict in Laos, and the consistent state involvement in those conflicts which occurred, makes this step unnecessary for the data on Laos.

[13]State-involved internal conflict as presented here includes all factions involved in the conflict as a single instance of conflict, provided those factions fought as allied forces during the conflict year. For most countries, to include Burma and Laos, factions have negligible, if any, significance or impact on the conflict data. For Afghanistan, 1984 represented a high point of faction involvement in the ongoing conflict, with a total of eight distinct factions. This number diminished over the years, dropping below five in 1990, and dropping from three to one between 1996 and 1997. From that point onward, the faction involvement remained at one until 2008. UCDP/PRIO Armed Conflict Dataset Version 4-2011.

[14]Based on identified or reported instances of one-sided conflict that comply with UCDP parameters, the UCDP data one-sided conflict database specifically defines, codes and adds instances of one-sided conflict in accordance with its published parameters. Therefore, this assessment only includes reported instances and not necessarily all one-sided action taken against civilian populations. As previously addressed in Chapters 1 and 3, if the choice of this database results in any error, that error will under-report adverse events of one-sided conflict.

[15]The UCDP/PRIO One-Sided Conflict data set contains information on the specific perpetrator of each one-sided conflict, as the perpetrators of these atrocities may either be the state or an insurgent faction. The UCDP database provides more detailed descriptions of these specific instances of conflict against civilians.

[16]See Appendix B for additional data.

[17]Hmong Studies, *HMONG 2000 CENSUS PUBLICATION: DATA & ANALYSIS,* Hmong National Development, Inc. & Hmong Cultural and Resource Center, 2000. http://www.hmongstudies.org/HmongCensusReport.pdf (accessed June 1, 2012).

[18]Lao National Commission on Drug Control and Supervision, *National Drug Control Master Plan:A Five Year Strategy to Address the Illicit Drug Control Problem in Lao PDR*, UNODC, 2009, 2, http://www.rtm.org.la/documents/SWG/National%20 Drug%20Control%20Masterplan.pdf (accessed June 1, 2012).

[19]Political Instability Task Force, Polity IV Country Report 2010: Afghanistan, Center for Systemic Peace, 2010, http://www.systemicpeace.org/polity/Afghanistan 2010.pdf (accessed June 1, 2012).

[20]Ibid.

[21]Barbara Crossette, "Taliban's Ban on Poppy A Success, U.S. Aides Say," *The New York Times*, May 20, 2001, http://www.nytimes.com/2001/05/20/world/taliban-s-ban-on-poppy-a-success-us-aides-say.html (accessed June 1, 2012); United Nations Office on Drugs and Crime, Executive Director speech before the UN General Assembly, October 12, 2001, http://www.unodc.org/unodc/en/speech_2001-10-12_1.html (accessed June 1, 2012).

[22]Christopher Cramer, *Inequality and Conflict: A Review of an Age-Old Concern*, UN Research Institute For Social Development, Identities, Conflict and Cohesion Programme Paper Number 11, October 2005.

[23]Ibid.

[24]The Taliban perpetrated all but one one-sided conflicts documented during the study period, whether in power as the central government or after surrendering.

[25]Thomas Johnson and M. Chris Mason, *Understanding the Taliban and Insurgency in Afghanistan*, Foreign Policy Research Institute (Winter 2007), 74, http://www.nps.edu/programs/ccs/docs/pubs/understanding%20the%20taliban%20and%20insurgency%20in%20afghanistan.pdf (accessed June 1, 2012).

[26]These values are lower than those observed by Olsson and Fors; however, this data has also limited opium value calculations to raw farm production and has not accounted for the additional income from refining that opium into heroin for export. Although raw opium might have a significant enough economic effect to strengthen a government against factional violence, the more likely explanation would take into account additional income from heroin and opiate production along with any alliances between the central government and factions in control of opium growing territories.

[27]Olsson and Fors, *The Prize of Predation*.

[28]Litner, *Burma in Revolt*; *Burma*; Smith, *Politics and Insurgency*.

[29]Ibid.

[30]Irrawaddy Publishing Group, "List of Cease-fire Agreements with the Junta," *The Irrawaddy*, January 1, 2004, http://www2.irrawaddy.org/print_article.php?art_id=444 (accessed June 1, 2012).

[31]Discussed in further detail later in the chapter.

[32]Ibid.

[33]Ibid.

[34]Political Instability Task Force, Polity IV Country Report 2010: Myanmar (Burma), Center for Systemic Peace, 2010, http://www.systemicpeace.org/polity/Myanmar2010.pdf (accessed June 1, 2012).

[35] Ibid., 4.

[36]Ibid; Lintner, *Burma in Revolt*; Thomas Lansner, "Backpacking Burma: A Brief History of Burma," *Burma Project*, Open Society Institute, 2000, http://journalism.berkeley.edu/projects/burma/history.html (accessed June 1, 2012); David Poveter, "Burma Slips Through the Cracks," *War Studies*, The Pica Project, King's College London, 2009, http://www.thepicaproject.org/?page_id=779 (accessed June 1, 2012).

[37]Mizzima, "The Internet in Burma (1998-2009)," *Mizzima News*, December 24, 2009, Online edition, http://www.mizzima.com/research/3202-the-internet-in-burma-1998-2009-.html (accessed June 1, 2012); Poveter, "Burma Slips Through the Cracks"; Myanmar Marketing Research and Development Co. Ltd. (MMRD), Private Sector and Humanitarian Relief in Myanmar, October 2011, http://www.burmalibrary.org/docs13/Private_Sector+Humanitarian_Response.pdf (accessed June 1, 2012).

[38]Mark Thompson, "Pacific Asia After Asian Values: Authoritarianism, Democracy and "Good Governance," *Third World Quarterly* 6, no. 24. (2004): 1085. http://www.jstor.org/stable/3993752 (accessed June 1. 2012).

[39]U.S. Embassy Rangoon, *Country Report on Economic and Trade Practices /Commercial Guide*; Larry Niksh and Martin Weiss, *Burma: Economic Sanctions*, Congressional Research Service 7-5700, August 3, 2009, www.crs.gov RS22737 (accessed June 1, 2012).

[40]Associated Press, "France's Total: no capital expenditure in Myanmar since 1998", *Pravada News*, September 27, 2007, Business section, English edition, http://english.pravda.ru/news/business/27-09-2007/97823-sarkozy_total-0/ (accessed June 1, 2012).

[41]David Steinberg, *Burma, the State of Myanmar* (Georgetown University Press: Washington D.C., 2001), 76-77; Aung Zaw, "A Junta by Any Other Name," *The Irrawaddy* 5, no. 7 (December 1997), http://www2.irrawaddy.org/article.php?art_id=943 (accessed June 1, 2012).

[42]Kate McGeown, "Burma's confusing capital move," *BBC News*, November, 8 2005, Asia-Pacific Section, Online edition, http://news.bbc.co.uk/2/hi/4416960.stm (accessed June 1, 2012).

[43]Reports out of Rangoon indicated that General Than Shwe moved the capital because of superstitions relating to numerology and astrology. Richard C. Paddock, "Abrupt relocation of Burma capital linked to astrology," *LA Times* and *The Boston Globe*, January 1, 2006, http://www.boston.com/news/world/asia/articles/2006/01/01/

abrupt_relocation_of_burma_capital_linked_to_astrology/?page=full (accessed June 1, 2012).

[44]Ibid.

[45]Asian Network for Free Elections, “Myanmar,” http://anfrel.org/category/country-profiles/myanmar/page/2/ (accessed June 1, 2012).

[46]Appears that, as the market becomes smaller, minor volatility results in a more rapid conflict response.

CHAPTER 5

CONCLUSIONS AND RECOMMENDATIONS

> It is not simply differences in identity, whether real or perceived, that *generate conflict*, but the implication of those differences in terms of access to power and wealth.
>
> —United Nations, Office of the Special Advisor on the Prevention of Genocide

Conclusions

Summary of Research and Findings

Recognizing that internal conflict increases the probability of mass atrocities, this study sought to investigate the apparent association between changes in raw opium production and changes in internal armed conflict. The methodology used the context of the opium's value relative to the national economy based on economic theories of conflict analysis consistent with the reviewed literature. The question specifically examined whether increases in conflict occurred within a proximate longitudinal time period following increases in the value of opium production. This examination first collected annual data on Afghanistan, Burma, Colombia, Laos and Mexico. The data included national Gross Domestic Product (GDP), hectares of land under poppy cultivation, local per hectare raw opium prices, and three types of internal armed conflict. Screening criteria excluded data on Colombia and Mexico from the analysis. The analysis of this data, presented in Chapter 4, answered this question affirmatively.

Documented cases of internal armed conflict progressively decreased or ceased in a close time proximity following a regular longitudinal increase in GDP but decrease in opium. Laos provided the cleanest example suggesting this relationship Within one to

two years of increased raw opium production, instances of documented internal conflict increased with observable consistency. Breaking internal armed conflict for Afghanistan and Burma into three categories of state-involvement, non-state (factional) involvement, and one-sided aggression further clarified the time-frame between changes in specific types of conflict related to changes in opium production. Increases in internal conflict did occur at slightly different intervals for different types of conflict.

Within a specific internal conflict category, the apparent association between increases in opium production and increases in conflict remained noticeably consistent. Several results in the data did not conform to the research hypothesis. These deviations did not diminish the significance of the observed relationship between opium production and internal conflict. Readily identifiable external factors, such as election violence in both Burma and Laos and major economic sanctions enacted against Burma, appeared to influence changes in internal conflict that deviated from the hypothesis.

In looking more closely at the relationship between opium production, GDP and internal conflict, GDP acted more as a control for opium production than a variable itself. Changes in the value of opium production alone suggested a consistent overall relationship to changes in internal conflict. Changes in GDP alone did not. Because only Afghanistan had any major decreases in GDP, insufficient data on decreases in national GDP made it difficult to assess the impact of that data relative to an increase or decrease in opium production. Specific and identifiable changes in the national GDP together with changes in the value of opium production did, however, appear to impact particular changes in conflict. When GDP and the value of opium production both increased substantially, but the GDP growth significantly out-paced the increase in opium, internal

armed conflict also increased. Perceived relative economic deprivation would provide the most likely explanation for this apparent association, consistent with previous research on economic theories of conflict analysis.

If increases in conflict follow increases in opium cultivation, then reducing opium cultivation should result in fewer instances of internal armed conflict. Although the apparent association between illicit opium production and internal armed conflict might seem intuitive, intuition alone would not support the application of Responsibility to Protect doctrine to internal drug control problems. The relationship suggested by the data strengthens the research hypothesis and provides support for subsequent policy recommendations. Where a central government's inability or unwillingness to control increasing illicit opium production would result in an increase in internal armed conflict and related atrocities, then Responsibility to Protect doctrine could theoretically extend to direct foreign intervention in that state.

Recommendations

Further Research

Territorial Data

Ungoverned Spaces

Although the data collected for this thesis suggested a relationship between increases in opium production and internal conflict in specific nations, it focused specifically on the economic nature of internal conflict. Opium's unique cultivation requirements also have implications with respect to the particular land on which it grows.[1] This mountainous terrain frequently lies within type of areas classified as ungoverned spaces.[2] To examine that relationship, further research should conduct an

analysis of changes in internal armed conflict in opium growing regions based on territorial classifications.

Proximity and Context of Conflict

The apparent association between increases in opium production and increases in conflict does not necessarily explain why conflict occurred. Examining instances of conflict in terms of the territorial proximity of a conflict to land under poppy cultivation would provide additional context to the nature and strength of the relationship tested in this hypothesis. This data would preferably identify whether conflicts occurred near opium growing areas where yield of opium has increased or decreased. To obtain a greater level of detail and fidelity, further research should also conduct on-site surveys from people in these regions to provide context to the conflicts for qualitative analysis.

Alternative Opium and Opiate Data

This research limited data to raw opium production as a primary export commodity from nations with substantial land under cultivation. The trade practices and market for opium and opiate products merits further research, as it may also have an association with changes in internal or cross-border conflict. The farm-gate value of raw opium directly impacts farmers and parties involved in purchasing, transporting and exporting raw opium.[3] The value of raw opium hardly compares to the value of heroin and other processed or partially synthetic opiates, which increases through the trade route.[4] Further research into alternative opium market data may reveal its own distinct trends with respect to conflict in areas near heroin labs or along common opium trade routes. Breaking down an analysis of conflict at different points throughout the supply

chain would help identify the most volatile point in the opium market. Identifying this point and focusing policies toward impacting it should more effectively and efficiently reduce the total conflict associated with the illicit opium market.

Fidelity of Time Period Data

This study limited data collection to a year-to-year time period. As result of the time period used, a time lag between changes in opium production and conflict that appeared two years apart may actually have occurred within fourteen months. To avoid this distortion, a month to month time period would provide greater fidelity in examining the longitudinal relationship between changes in opium production and changes in conflict. This level of detail would help pinpoint the timing of changes in data and more reliably account for outside factors related to increases in conflict. The UCDP database provides both start date and end date for specific instances of armed conflict, which would permit a month-to-month analysis of conflict data. The lack of consistent and readily available data for month-to-month intervals for opium production makes this further research impractical without the dedication of significant resources, time and further data collection efforts.

Governance

The case studies of Afghanistan and Burma briefly examined how the autocracy and resultant practices of their central governments related to changes in conflict. The autocratic nature of the central governments in power and the lack of any democratic nation in the case studies made further study of governance impractical. Further research studying Mexico or Colombia for similarities or differences in their opium production

would allow for a comparison between the type of governance and differences in the association between. The case studies also did not address other concepts of governance to the fullest extent possible. Further research conducting a thorough analysis of governance—beyond the limited classification as a democracy, autocracy or anocracy—should include data on ungoverned spaces, state strength and weakness, and government corruption.

Policy Implications

H. L. Menken observed that "for every complex problem, there is a solution that is clear, simple and wrong."[5] Conflict is a complex problem, but simply reducing opium production does not offer a clear or easy answer. Reducing raw opium production will not end global conflict or even a majority of it. A more robust analysis for policy recommendations should factor in other pieces of the puzzle involving territory, governance, market practices, and outside economic influences. Increases in internal conflict in opium producing regions do, however, appear associated with increases in opium production. The initial results of this research support a recommendation to incorporate the monitoring and eradication of opium crops into conflict and atrocity prevention efforts. At a minimum, increased monitoring activities would provide better data for a more comprehensive research program and more detailed studies.

By researching the relationship between conflict and opium as a raw product cultivated on specific areas of land, this research focused on the initiating source of a potential factor that might result in increased conflict. Raw opium production begins with poppy farmers. Working with them towards crop eradication and reduction may provide a means of decreasing production of opium and, therefore, the likelihood of conflict.

Reducing the land under poppy cultivation through crop substitution programs would reduce the total yield, but will only remain effective as long as the farmers have adequate means to continue to subsist. Solely focusing on localized regional farmers who grow poppies would fail to account for the effect of supply-side market economics. As crops from one area decrease, crops elsewhere will increase as evidence in the shifting production rates between Afghanistan and Burma over the years. Globally integrated efforts toward eradication programs tailored for each nation would help combat this shift. These efforts would include more robust programs for locating and monitoring crops.

Because an increase in opium cultivation has an apparent association with an increase in internal conflict, government and military planners should increase their assistance and involvement in illicit crop monitoring efforts. Intelligence indicating an observable increase in illicit poppy cultivation suggests a likely increase in conflict within the next year. Planners should focus their efforts on working with the local governments to help prevent this conflict from occurring and should prepare to respond if a conflict and humanitarian crisis do in fact occur. These collective efforts would help refine understanding of how opium relates to conflict and how reducing its production might help prevent future atrocities. It is not a clear or simple answer, but one of many starting points.

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[1]Booth, *Opium: A History*.

[2]Clunan and Trinkunas, *Ungoverned Spaces*.

[3]UNODC, *World Drug Report 2011*.

[4]Ibid.; McCoy, *The Politics of Heroin*.

[5]Robert Matthews, “Military Intervention and Syria” *Open Security Contemporary Conflicts*, May 14, 2012, http://www.opendemocracy.net/robert-matthews/military-intervention-and-syria (accessed June 1, 2012).

APPENDIX A

UNSD GDP AT CONSTANT 2005 U.S. PRICES

Selected Series:	GDP, at constant 2005 prices-US Dollars
Selected Countries/Areas:	Afghanistan, Colombia, Lao People's Democratic Republic, Mexico, Myanmar
Selected Years:	1985, 1986, 1987, 1988, 1989, 1990, 1991, 1992, 1993, 1994, 1995, 1996, 1997, 1998, 1999, 2000, 2001, 2002, 2003, 2004, 2005, 2006, 2007, 2008, 2009, 2010

Country or area	Year	Currency	Gross Domestic Product
Afghanistan	1985	US$	6,582,879,817
Afghanistan	1986	US$	6,779,840,982
Afghanistan	1987	US$	6,083,911,533
Afghanistan	1988	US$	5,580,566,334
Afghanistan	1989	US$	5,186,644,005
Afghanistan	1990	US$	5,024,698,158
Afghanistan	1991	US$	4,475,467,658
Afghanistan	1992	US$	4,547,724,038
Afghanistan	1993	US$	3,412,387,561
Afghanistan	1994	US$	2,652,749,088
Afghanistan	1995	US$	3,977,388,752
Afghanistan	1996	US$	3,767,768,199
Afghanistan	1997	US$	3,574,068,605
Afghanistan	1998	US$	3,411,851,111
Afghanistan	1999	US$	3,246,262,093
Afghanistan	2000	US$	3,067,606,781
Afghanistan	2001	US$	2,893,499,277
Afghanistan	2002	US$	4,774,198,018
Afghanistan	2003	US$	5,457,798,008
Afghanistan	2004	US$	5,972,944,893
Afghanistan	2005	US$	6,839,958,644
Afghanistan	2006	US$	7,605,137,927
Afghanistan	2007	US$	8,835,481,903
Afghanistan	2008	US$	9,037,329,329
Afghanistan	2009	US$	9,092,168,878
Afghanistan	2010	US$	9,840,185,544
Colombia	1985	US$	75,484,783,567
Colombia	1986	US$	79,881,074,835
Colombia	1987	US$	84,169,835,542
Colombia	1988	US$	87,590,643,479
Colombia	1989	US$	90,581,072,229
Colombia	1990	US$	94,459,752,232

Colombia	1991	US$	96,350,465,808
Colombia	1992	US$	100,247,774,163
Colombia	1993	US$	105,972,085,664
Colombia	1994	US$	111,426,835,838
Colombia	1995	US$	117,223,747,433
Colombia	1996	US$	119,633,697,369
Colombia	1997	US$	123,737,484,527
Colombia	1998	US$	124,442,521,027
Colombia	1999	US$	119,210,938,473
Colombia	2000	US$	122,697,693,296
Colombia	2001	US$	124,756,435,816
Colombia	2002	US$	127,880,312,598
Colombia	2003	US$	132,891,010,957
Colombia	2004	US$	139,978,117,897
Colombia	2005	US$	146,566,266,311
Colombia	2006	US$	156,382,564,359
Colombia	2007	US$	167,173,942,844
Colombia	2008	US$	173,103,276,416
Colombia	2009	US$	175,616,596,868
Colombia	2010	US$	183,181,549,235
Lao People's Democratic Republic	1985	US$	889,357,458
Lao People's Democratic Republic	1986	US$	932,477,256
Lao People's Democratic Republic	1987	US$	922,475,352
Lao People's Democratic Republic	1988	US$	905,533,643
Lao People's Democratic Republic	1989	US$	1,026,967,708
Lao People's Democratic Republic	1990	US$	1,095,847,060
Lao People's Democratic Republic	1991	US$	1,139,630,432
Lao People's Democratic Republic	1992	US$	1,219,468,773
Lao People's Democratic Republic	1993	US$	1,291,093,283
Lao People's Democratic Republic	1994	US$	1,391,037,562
Lao People's Democratic Republic	1995	US$	1,494,722,540
Lao People's Democratic Republic	1996	US$	1,597,686,350
Lao People's Democratic Republic	1997	US$	1,708,138,532
Lao People's Democratic Republic	1998	US$	1,776,373,805
Lao People's Democratic Republic	1999	US$	1,905,664,695
Lao People's	2000	US$	2,016,383,916

Democratic Republic			
Lao People's Democratic Republic	2001	US$	2,132,175,541
Lao People's Democratic Republic	2002	US$	2,258,339,811
Lao People's Democratic Republic	2003	US$	2,388,666,708
Lao People's Democratic Republic	2004	US$	2,553,827,447
Lao People's Democratic Republic	2005	US$	2,739,496,560
Lao People's Democratic Republic	2006	US$	2,967,129,493
Lao People's Democratic Republic	2007	US$	3,508,189,367
Lao People's Democratic Republic	2008	US$	3,781,291,426
Lao People's Democratic Republic	2009	US$	4,064,892,113
Lao People's Democratic Republic	2010	US$	4,379,799,794
Mexico	1985	US$	504,134,915,596
Mexico	1986	US$	485,210,094,773
Mexico	1987	US$	494,214,366,511
Mexico	1988	US$	500,369,500,321
Mexico	1989	US$	521,376,478,844
Mexico	1990	US$	547,801,436,336
Mexico	1991	US$	570,930,986,403
Mexico	1992	US$	591,648,123,871
Mexico	1993	US$	603,188,365,788
Mexico	1994	US$	629,821,097,418
Mexico	1995	US$	590,980,067,325
Mexico	1996	US$	621,435,132,147
Mexico	1997	US$	663,518,547,789
Mexico	1998	US$	696,896,028,322
Mexico	1999	US$	723,077,360,700
Mexico	2000	US$	770,735,205,456
Mexico	2001	US$	770,482,203,090
Mexico	2002	US$	776,429,920,665
Mexico	2003	US$	787,224,343,848
Mexico	2004	US$	819,261,021,653
Mexico	2005	US$	846,094,756,860
Mexico	2006	US$	888,896,768,615
Mexico	2007	US$	918,794,384,274
Mexico	2008	US$	929,983,342,335
Mexico	2009	US$	871,545,526,004
Mexico	2010	US$	922,307,347,706
Myanmar	1985	US$	3,668,980,248
Myanmar	1986	US$	3,630,186,266

Myanmar	1987	US$	3,484,774,360
Myanmar	1988	US$	3,089,167,477
Myanmar	1989	US$	3,203,321,393
Myanmar	1990	US$	3,293,556,722
Myanmar	1991	US$	3,272,128,288
Myanmar	1992	US$	3,588,246,825
Myanmar	1993	US$	3,804,955,780
Myanmar	1994	US$	4,089,488,674
Myanmar	1995	US$	4,373,628,387
Myanmar	1996	US$	4,655,409,005
Myanmar	1997	US$	4,918,513,467
Myanmar	1998	US$	5,162,155,407
Myanmar	1999	US$	5,727,160,007
Myanmar	2000	US$	6,514,411,445
Myanmar	2001	US$	7,253,403,647
Myanmar	2002	US$	8,125,663,055
Myanmar	2003	US$	9,250,579,446
Myanmar	2004	US$	10,505,389,384
Myanmar	2005	US$	11,930,862,599
Myanmar	2006	US$	13,490,920,861
Myanmar	2007	US$	15,108,658,359
Myanmar	2008	US$	16,657,141,932
Myanmar	2009	US$	18,394,085,127
Myanmar	2010	US$	20,310,071,929

Source: United Nations Statistics Division National Accounts Main Aggregates Database, http://unstats.un.org/unsd/snaama/selbasicFast.asp (accessed June 1, 2012).

APPENDIX B

COMPLETE DATA SET

Country	Currency	Year	GDP	GDP growth(%)
Afghanistan	US$	1985	6562879817	0.286666667
Afghanistan	US$	1986	6779840982	2.992021277
Afghanistan	US$	1987	6083911533	-10.26466589
Afghanistan	US$	1988	5580566334	-8.273381295
Afghanistan	US$	1989	5186644005	-7.058823529
Afghanistan	US$	1990	5024698158	-3.122362869
Afghanistan	US$	1991	4475467658	-10.93061878
Afghanistan	US$	1992	4547724038	1.614498971
Afghanistan	US$	1993	3412387561	-24.96493779
Afghanistan	US$	1994	2652749088	-22.26120155
Afghanistan	US$	1995	3977368752	49.93460096
Afghanistan	US$	1996	3787768199	-5.270305886
Afghanistan	US$	1997	3574068605	-5.640963654
Afghanistan	US$	1998	3411851111	-4.538734782
Afghanistan	US$	1999	3246262093	-4.853348313
Afghanistan	US$	2000	3067606781	-5.503416128
Afghanistan	US$	2001	2893499277	-5.675678874
Afghanistan	US$	2002	4774198018	64.99738069
Afghanistan	US$	2003	5457798008	14.31563503
Afghanistan	US$	2004	5972944693	9.438731238
Afghanistan	US$	2005	6838958644	14.51568307
Afghanistan	US$	2006	7605137927	11.16869926
Afghanistan	US$	2007	8835481903	16.17779984
Afghanistan	US$	2008	9037329329	2.284509536
Afghanistan	US$	2009	9092168878	0.606811445
Afghanistan	US$	2010	9840185544	8.227043244
Burma	US$	1988	3089167477	9.860945667
Burma	US$	1989	3203321393	6.039410486
Burma	US$	1990	3293556722	7.47795536
Burma	US$	1991	3272129288	6.948049867
Burma	US$	1992	3588246825	6.442719727
Burma	US$	1993	3804955780	5.651588386
Burma	US$	1994	4089488674	4.963568621
Burma	US$	1995	4373628387	10.94512962
Burma	US$	1996	4655409005	13.74593056
Burma	US$	1997	4918513467	11.34395959
Burma	US$	1998	5162155407	12.02551864
Burma	US$	1999	5727160007	13.84399505
Burma	US$	2000	6514411445	13.56466311
Burma	US$	2001	7253403647	13.56897077
Burma	US$	2002	8125863055	13.07582121
Burma	US$	2003	9250579446	11.99130522
Burma	US$	2004	10505389364	10.24698132
Burma	US$	2005	11930862598	10.42761839
Burma	US$	2006	13490920861	10.41632018
Burma	US$	2007	15108858359	
Burma	US$	2008	16657141932	
Burma	US$	2009	18394085127	
Burma	US$	2010	20310071929	

Country	Currency	Year	GDP	GDP growth(%)
Lao PDR	US$	1985	889357458.2	-1.07261644
Lao PDR	US$	1986	932477256.1	-1.836548715
Lao PDR	US$	1987	9224753518	13.41022126
Lao PDR	US$	1988	905533642.5	8.707061137
Lao PDR	US$	1989	1026967708	3.99539075
Lao PDR	US$	1990	1065847060	7.005634378
Lao PDR	US$	1991	1139830432	5.873416939
Lao PDR	US$	1992	1219468773	7.74105798
Lao PDR	US$	1993	1291093283	7.463787037
Lao PDR	US$	1994	1391037562	6.888489831
Lao PDR	US$	1995	1494722540	6.813258135
Lao PDR	US$	1996	1597686950	3.994715444
Lao PDR	US$	1997	1708138532	7.278360537
Lao PDR	US$	1998	1776373805	5.810005361
Lao PDR	US$	1999	1905664695	5.742538595
Lao PDR	US$	2000	2018383916	5.917161485
Lao PDR	US$	2001	2132175541	5.770916174
Lao PDR	US$	2002	2258338811	6.914348394
Lao PDR	US$	2003	2388666708	7.270228392
Lao PDR	US$	2004	2553827447	8.309298013
Lao PDR	US$	2005	2739496560	18.23512842
Lao PDR	US$	2006	2957129493	7.784701173
Lao PDR	US$	2007	3508189367	7.500101295
Lao PDR	US$	2008	3781291426	7.747012045
Lao PDR	US$	2009	4064892113	4.17141414
Lao PDR	US$	2010	4379799794	8.467851655

Country	Currency	Year	GDP	GDP growth(%)
Colombia	US$	1994	1.11427E+11	5.702437593
Colombia	US$	1995	1.17224E+11	2.055554712
Colombia	US$	1996	1.19634E+11	3.430283878
Colombia	US$	1997	1.23737E+11	0.56978409
Colombia	US$	1998	1.24443E+11	-4.204015244
Colombia	US$	1999	1.19211E+11	2.924861483
Colombia	US$	2000	1.22698E+11	1.677698308
Colombia	US$	2001	1.24756E+11	2.503980465
Colombia	US$	2002	1.2788E+11	3.918271904
Colombia	US$	2003	1.32891E+11	5.333022067
Colombia	US$	2004	1.39978E+11	4.706555934
Colombia	US$	2005	1.49568E+11	6.697515258
Colombia	US$	2006	1.59383E+11	6.900627655
Colombia	US$	2007	1.67174E+11	3.546804886
Colombia	US$	2008	1.73103E+11	1.45191963
Colombia	US$	2009	1.75617E+11	4.307652298
Mexico	US$	1995	5.04135E+11	1.245438058
Mexico	US$	1996	4.8521E+11	4.198283163
Mexico	US$	1997	4.94214E+11	5.068306409
Mexico	US$	1998	5.0037E+11	4.222250716
Mexico	US$	1999	5.21376E+11	3.628658798
Mexico	US$	2000	5.47801E+11	1.950524552
Mexico	US$	2001	5.70931E+11	4.415325815
Mexico	US$	2002	5.91648E+11	-6.166994128
Mexico	US$	2003	6.03188E+11	5.153315062
Mexico	US$	2004	6.29821E+11	6.771872402
Mexico	US$	2005	6.5098E+11	5.030378414
Mexico	US$	2006	6.71435E+11	3.75684913
Mexico	US$	2007	6.63519E+11	6.580974541
Mexico	US$	2008	6.98896E+11	-3.28E-02
Mexico	US$	2009	7.23077E+11	0.771947431
Mexico	US$	2000	7.70735E+11	1.38026368
Mexico	US$	2001	7.70482E+11	4.069574074
Mexico	US$	2002	7.7643E+11	3.275358463
Mexico	US$	2003	7.87224E+11	5.058772839
Mexico	US$	2004	8.19261E+11	3.363451946
Mexico	US$	2005	8.46095E+11	1.217786945
Mexico	US$	2006	8.8689E+11	-6.283748716
Mexico	US$	2007	9.18794E+11	5.824345394
Mexico	US$	2008	9.29983E+11	3.234360222
Mexico	US$	2009	8.71546E+11	0.44336829
Mexico	US$	2010	9.22307E+11	1.483658357

Country	Raw Opium (ha)	Raw Opium (mt)	US$ PPU(kg)	Value US$	Opium % of GDP
Afghanistan	15000	450	138	62100000	1%
Afghanistan	10000	325	138	44850000	1%
Afghanistan	18500	600	138	82800000	1%
Afghanistan	23015	750	138	103500000	2%
Afghanistan	17790	585	138	80730000	2%
Afghanistan	12370	415	138	57270000	1%
Afghanistan	17190	570	138	78660000	2%
Afghanistan	19470	640	138	88320000	2%
Afghanistan	21080	685	138	94530000	3%
Afghanistan	71470	3416	138	471408000	18%
Afghanistan	53759	2335	138	322230000	8%
Afghanistan	56824	2248	139	310224000	8%
Afghanistan	58418	2604	138	386352000	11%
Afghanistan	63674	2693	139	371634000	11%
Afghanistan	90583	4565	138	629970000	19%
Afghanistan	82171	3276	138	452088000	15%
Afghanistan	7608	185	138	25530000	1%
Afghanistan	74100	3400	138	469200000	10%
Afghanistan	80000	3600	138	496800000	9%
Afghanistan	131000	4200	138	579600000	10%
Afghanistan	104000	4100	138	565800000	8%
Afghanistan	165000	6100	138	841800000	11%
Afghanistan	193000	8200	138	1131600000	13%
Afghanistan	157000	7700	138	1062600000	12%
Afghanistan	123000	6900	138	952200000	10%
Afghanistan	123000	3600	138	496800000	5%
Burma	115720	1280	187	239360000	8%
Burma	142718	2430	187	454410000	14%
Burma	150100	2255	187	421685000	13%
Burma	160000	2350	187	439450000	13%
Burma	153700	2280	187	426360000	12%
Burma	165800	2575	187	481525000	13%
Burma	146600	1583	187	296021000	7%
Burma	154070	1664	187	311168000	7%
Burma	13000	1760	187	329120000	7%
Burma	155150	1676	187	313412000	6%
Burma	130300	1303	187	243661000	5%
Burma	89500	895	187	167365000	3%
Burma	108700	1087	187	203269000	3%
Burma	105000	1097	187	205139000	3%
Burma	81400	828	187	154836000	2%
Burma	82200	810	187	151470000	2%
Burma	44200	370	187	69190000	1%
Burma	32800	312	187	58344000	0%
Burma	21500	315	187	58905000	0%
Burma	27700	460	187	86020000	1%
Burma	28500	410	187	76670000	0%
Burma	31700	330	187	61710000	0%
Burma	38100	580	187	108460000	1%

Country	Raw Opium (ha)	Raw Opium (mt)	US$ PPU(kg)	Value US$	Opium % of GDP
Lao PDR		100	521	52100000	6%
Lao PDR		290	521	151090000	16%
Lao PDR		225	521	117225000	13%
Lao PDR	40400	255	521	132855000	15%
Lao PDR	42000	380	521	197980000	19%
Lao PDR	30000	275	521	143275000	13%
Lao PDR	30000	265	521	138065000	12%
Lao PDR	21601	230	521	119830000	10%
Lao PDR	26000	180	521	93780000	7%
Lao PDR	18520	120	521	62520000	4%
Lao PDR	19850	128	521	66688000	4%
Lao PDR	21601	140	521	72940000	5%
Lao PDR	24082	147	521	76587000	4%
Lao PDR	26837	124	521	64604000	4%
Lao PDR	22543	124	521	64604000	3%
Lao PDR	19052	167	521	87007000	4%
Lao PDR	17255	134	521	69814000	3%
Lao PDR	14052	112	521	58352000	3%
Lao PDR	12000	120	521	62520000	3%
Lao PDR	6600	43	521	22403000	1%
Lao PDR	1800	14	521	7294000	0%
Lao PDR	2500	20	521	10420000	0%
Lao PDR	1500	9	521	4689000	0%
Lao PDR	1600	10	521	5210000	0%
Lao PDR	1900	11	521	5731000	0%
Lao PDR	3000	18	521	9378000	0%

Country	Raw Opium (ha)	Raw Opium (mt)	US$ PPU(kg)	Value US$	Opium % of GDP
Colombia	15091	205	230	47150000	0.000423148
Colombia	5226	71	230	16330000	0.000139306
Colombia	4916	67	230	15410000	0.00012881
Colombia	6584	90	230	20700000	0.00016729
Colombia	7350	100	230	23000000	0.000184824
Colombia	6500	88	230	20240000	0.000169783
Colombia	6500	88	230	20240000	0.000164958
Colombia	4300	80	230	18400000	0.000147487
Colombia	4153	52	230	11960000	9.3525E-05
Colombia	4026	50	230	11500000	8.65371E-05
Colombia	3950	49	230	11270000	8.05126E-05
Colombia	1950	24	230	5520000	3.76621E-05
Colombia	1023	13	230	2990000	1.91198E-05
Colombia	715	14	230	3220000	1.92614E-05
Colombia	394	10	230	2300000	1.32869E-05
Colombia	386	9	230	2070000	1.1787E-05
Mexico		52	2000	104000000	0.000206294
Mexico		40	2000	80000000	0.000164877
Mexico		50	2000	100000000	0.000202341
Mexico		67	2000	134000000	0.000267802
Mexico	6600	66	2000	132000000	0.000253176
Mexico	5450	62	2000	124000000	0.000226359
Mexico	3765	41	2000	82000000	0.000143625
Mexico	3310	40	2000	80000000	0.000135216
Mexico	3980	49	2000	98000000	0.00016247
Mexico	5795	60	2000	120000000	0.00019053
Mexico	5050	53	2000	106000000	0.000179363
Mexico	5100	56	2000	112000000	0.000180228
Mexico	4000	46	2000	92000000	0.000138656
Mexico	5500	60	2000	120000000	0.000172192
Mexico	3600	43	2000	86000000	0.000118936
Mexico	1900	21	2000	42000000	5.44934E-05
Mexico	4400	91	2000	182000000	0.000236216
Mexico	2700	58	2000	116000000	0.000149402
Mexico	4800	101	2000	202000000	0.000256598
Mexico	3500	73	2000	146000000	0.000178209
Mexico	3300	71	2000	142000000	0.00016783
Mexico	5000	108	2000	216000000	0.000242998
Mexico	6900	149	2000	298000000	0.000324338
Mexico	15000	325	2000	650000000	0.000698937
Mexico	19500	425	2000	850000000	0.000975279
Mexico	14000	304	2000	608000000	0.000659216

Country	Conflict Total	State	Non-State	One-Sided	Cross-Border
Afghanistan	1	1	0	0	0
Afghanistan	1	1	0	0	0
Afghanistan	1	1	0	0	0
Afghanistan	1	1	0	0	0
Afghanistan	2	1	1	0	0
Afghanistan	3	1	2	0	0
Afghanistan	3	1	2	0	0
Afghanistan	2	1	1	0	0
Afghanistan	2	1	1	0	0
Afghanistan	3	1	2	0	0
Afghanistan	3	1	2	0	0
Afghanistan	5	1	4	0	0
Afghanistan	3	1	1	1	0
Afghanistan	2	1	0	1	0
Afghanistan	2	1	0	1	0
Afghanistan	2	1	0	1	0
Afghanistan	2	1	0	1	0
Afghanistan	2	0	2	0	0
Afghanistan	2	1	1	0	0
Afghanistan	3	1	1	1	0
Afghanistan	2	1	0	1	0
Afghanistan	3	1	1	1	0
Afghanistan	2	1	0	1	0
Afghanistan	2	1	0	1	0
Afghanistan	2	1	0	1	0
Afghanistan	3	1	1	1	0
Burma	4	4	0	0	0
Burma	3	3	0	0	0
Burma	6	5	1	0	0
Burma	7	5	1	1	0
Burma	5	5	0	1	0
Burma	1	1	0	0	0
Burma	3	3	0	0	0
Burma	3	2	1	0	0
Burma	5	3	1	1	0
Burma	3	3	0	1	0
Burma	4	2	1	1	0
Burma	1	1	0	0	0
Burma	4	2	1	1	0
Burma	2	2	0	0	0
Burma	2	2	0	1	0
Burma	1	1	0	1	0
Burma	0	0	0	0	0
Burma	5	3	1	1	0
Burma	3	2	0	1	0
Burma	4	2	1	1	0
Burma	2	2	0	0	0
Burma	3	3	0	0	0
Burma	4	3	0	1	0

Country	Conflict Total	State	Non-State	One-Sided	Cross-Border
Lao PDR	1	0	0	0	1
Lao PDR	1	0	0	0	1
Lao PDR	1	0	0	0	1
Lao PDR	0	0	0	0	0
Lao PDR	1	1	0	0	0
Lao PDR	1	1	0	0	0
Lao PDR	0	0	0	0	0
Lao PDR	0	0	0	0	0
Lao PDR	0	0	0	0	0
Lao PDR	0	0	0	0	0
Lao PDR	0	0	0	0	0
Lao PDR	0	0	0	0	0
Lao PDR	0	0	0	0	0
Lao PDR	0	0	0	0	0
Lao PDR	0	0	0	0	0
Lao PDR	1	1	0	0	0
Lao PDR	0	0	0	0	0
Lao PDR	0	0	0	0	0
Lao PDR	0	0	0	0	0
Lao PDR	0	0	0	0	0
Lao PDR	0	0	0	0	0
Lao PDR	1	0	0	1	0
Lao PDR	0	0	0	0	0
Lao PDR	0	0	0	0	0
Lao PDR	0	0	0	0	0
Lao PDR	0	0	0	0	0

Country	Conflict Total	State	Non-State	One-Sided	Cross-Border
Colombia	2	1	0	1	0
Colombia	2	1	0	1	0
Colombia	2	1	0	1	0
Colombia	4	1	1	2	0
Colombia	5	1	1	3	0
Colombia	4	1	1	2	0
Colombia	6	1	2	3	0
Colombia	6	1	2	3	0
Colombia	4	1	1	2	0
Colombia	3	1	1	1	0
Colombia	4	1	1	2	0
Colombia	4	1	1	2	0
Colombia	2	1	0	1	0
Colombia	1	1	0	0	0
Colombia	2	1	0	1	0
Colombia	2	1	0	1	0
Mexico	0	0	0	0	0
Mexico	0	0	0	0	0
Mexico	0	0	0	0	0
Mexico	0	0	0	0	0
Mexico	0	0	0	0	0
Mexico	0	0	0	0	0
Mexico	0	0	0	0	0
Mexico	0	0	0	0	0
Mexico	1	0	1	0	0
Mexico	1	1	0	0	0
Mexico	0	0	0	0	0
Mexico	1	1	0	0	0
Mexico	1	0	0	1	0
Mexico	0	0	0	0	0
Mexico	0	0	0	0	0
Mexico	0	0	0	0	0
Mexico	0	0	0	0	0
Mexico	1	0	1	0	0
Mexico	0	0	0	0	0
Mexico	1	0	1	0	0
Mexico	1	0	1	0	0
Mexico	0	0	0	0	0
Mexico	0	0	0	0	0
Mexico	3	0	3	0	0
Mexico	3	0	3	0	0
Mexico	6	0	5	1	0

Source: Created by author using: GDP data from UNSD National Accounts Main Aggregates Database; opium data on hectares, metric tons and local values from UNODC World Drug Report 2011 and annual Illicit Crop Monitoring reports (and U.S. INCSR reports from 1995 and 1996 for dates prior to available UNODC data), and conflict data from UCDP/PRIO databases for Internal Armed Conflict v.4-2011, Non-State Conflict v2.3-2011 and One-sided Conflict v.1.3-2011.

BIBLIOGRAPHY

Books

Adalian, Rouben. *Armenian Genocide*. Washington, DC: Armenian National Institute, 1998.

Balakian, Peter. *The Burning Tigris: The Armenian Genocide and America's Response*. New York, NY: Harper Collins Publishers, 2003.

Barron, John, and Paul Anthony. *Murder of a Gentle Land: The Untold Story of Communist Genocide in Cambodia*. New York, NY: Reader's Digest Press, 1977.

Booth, Martin. *Opium: A History*. London: Simon & Schuster, Ltd., 1996.

Burma Campaign. *Valley of Darkness: Gold Mining and Militarization in Burma's Hugawng Valley*. Kachin Development Networking Group, 2007. http://www.burmacampaign.org.uk/reports/ValleyofDarkness.pdf (accessed June 1, 2012).

Clunan, Anne L., and Harold A. Trinkunas. *Ungoverned Spaces: Alternatives to State Authority in an Era of Softened Sovereignty*. Stanford, CA: Stanford University Press, 2010.

Ehrenfeld, Rachel. *Narco-Terrorism*. USA: Basic Books, Inc., 1990.

Folsom, Davis. *Encyclopedia of American Business*. New York, NY: Facts on File, Inc., 2004.

Hafvenstein, Joel. *Opium Season: A Year on the Afghan Frontier*. Guilford, CT: The Lyons Press, 2009.

Hamilton-Merrit, Jane. *Tragic Mountains: The Hmong, the Americans, and the Secret Wars for Laos, 1942-1992*. Bloomington, IN: Indiana University Press, 1993.

Jonassohn, Kurt, and Karin Solveig Bjornson. *Genocide and Gross Human Rights Violations in Comparative Perspective*. New Brunswick, NJ: Transaction Publishers, 1998.

Kienholz, Mary. *Opium Traders and Their Worlds: A Revisionist Expose of the World's Greatest Opium Traders, Volume I*. New York, NY: iUniverse, 2008.

Killick, Nick, and Simon Higdon. *The Cost of Conflict*. London: International Alert/Saferworld, 1998.

Lacina, Bethany. “Insights from macro studies in the risk of civil war.” In *Resources, Governance and Civil Conflict*, edited by Oberg and Strom. London: Routledge, 2008.

Lee, Gary. *The Effects of Development Measures on the Socio-economy of the White Hmong: Opium and the Hmong*. Sydney: Department of Anthropology, University of Sydney, 1981.

Lewy, Guenter. *The Armenian Massacres in Ottoman Turkey: A Disputed Genocide*. Salt Lake City, UT: The University of Utah Press, 2005.

Lintner, Bertil. *Burma in Revolt Opium and Insurgency Since 1948*. Boulder, CO: Westview Press, 1994.

Menjivar, Cecilia, and Nestor Rodriguez (eds.). *When States Kill: Latin America, the U.S., and Technologies of Terror*. Austin, TX: University of Texas Press, 2005.

Moses, A. Dirk. *Genocide: Critical Concepts in Historical Studies*. London: Routledge, June 17, 2010.

Norman, C. B. *Armenia and the Campaign of 1877*. London: Cassell, Petter and Galpin, 1999.

Oberg, Magnus, and Kaare Strom. *Resources, Governance and Civil Conflict*. New York, NY: Routledge, 2008.

Pedersen, Daniel. *Secret Genocide: Voices of the Karen of Burma*. Bangkok: Maverick House, 2011.

Power, Samantha. *A Problem From Hell: America and the Age of Genocide*. New York, NY: Harper Perennial, May 6, 2003.

Ragin, Charles C. *The Comparative Method. Moving beyond qualitative and quantitative strategies*. Berkeley, CA: University of California Press, 1987.

Renard, Ronald. *The Burmese Connection, Illegal Drugs & The Making of the Golden Triangle: Studies on the Impact of the Illegal Drug Trade*, Vol. 6. Edited by LaMond Tullis. London: Lynne Riener Publishers, 1996.

Rotberg, Robert. *Worst of the Worst: Dealing with Repressive and Rouge Nations*. Cambridge, MA: World Peace Foundation, 2007.

Rupesinghe, Kumar, Peter King, and Olga Vorkunova (eds.). *Ethnicity and Conflict in a Post-Communist World*. London: St. Martin’s Press, 1994.

Simsir, Bilal, ed. *British Documents on Ottoman Armenians, Volume I (1856-1800)*. Ankara: Turkish Historical Society, 1982.

Steinberg, David. *Burma, the State of Myanmar*. Washington, DC: Georgetown University Press, 2001.

———. *Burma/Myanmar: What Everyone Needs to Know*, New York, NY: Oxford University Press, 2010.

Stuart-Fox, Martin. *A History of Laos*. New York, NY: Cambridge University Press, 1997.

Taylor, Robert. *The State in Myanmar*. Honolulu, HI: University of Hawaii Press, 2009.

Toft, Monica. *The Geography of Ethnic Violence*. Princeton, NJ: Princeton University Press, 2005.

Tullis, LaMond. *Unintended Consequences: Illegal Drugs and Drug Policies in Nine Countries, Studies on the Impact of the Illegal Drug Trade*, Vol. 4. London: Lynne Rienner Publishers, 1995.

Periodicals

Adam, Christopher, and Stephen O'Connell. "Aid, Taxation and Development in Sub-Saharan Africa." *Economics and Politics* 11, no. 3 (November 1999): 225-253.

Adelman, Howard. "Review Article: The Theory and History of Genocide." *The International History Review* 26, no. 1 (March 2004): 89-96.

American Society of International Law. "The International Opium Commission." *The American Journal of International Law* 3, no. 3 (July 1909).

———. "Convention for Limiting the Manufacture and Regulating the Distribution of Narcotic Drugs." *The American Journal of International Law* 28, no. 1 (January 1934).

AP News. "France's Total: no capital expenditure in Myanmar since 1998." *Pravada News*, September 27, 2007, Business section, English edition. http://english.pravda.ru/news/business/27-09-2007/97823-sarkozy_total-0/ (accessed June 1, 2012).

Asian Network for Free Elections. "Myanmar." http://anfrel.org/category/country-profiles/myanmar/page/2/ (accessed June 1, 2012).

Associated Press. "France's Total: no capital expenditure in Myanmar since 1998." *Pravada News*, September 27, 2007. http://english.pravda.ru/news/business/27-09-2007/97823-sarkozy_total-0/ (accessed June 1, 2012).

Aung Zaw. “A Junta by Any Other Name.” *The Irrawaddy* 5, no. 7. Irrawaddy Publishing Group, December 1997. http://www2.irrawaddy.org/article.php?art_id=943 (accessed June 1, 2012).

Bajoria, Jayshree. “The Taliban in Afghanistan.” *Backgrounder*. Council on Foreign Relations, October 6, 2011. http://www.cfr.org/afghanistan/taliban-afghanistan/p10551 (accessed June 1, 2012).

———. “The Troubled Afghan-Pakistani Border.” *Backgrounder*. Council on Foreign Relations, March 20, 2009. http://www.cfr.org/afghanistan/taliban-afghanistan/p10551 (accessed June 1, 2012).

Batre, Ronald. “Arua Farmers in Opium Growing Business.” *Uganda Radio Network*, July 23, 2011.

BBC. “Analysis: Defining Genocide.” *BBC World News Online*, August 27, 2010. World section, Online edition. http://www.bbc.co.uk/news/world-11108059 (accessed June 1, 2012).

Bernstein, Dennis, and Leslie Kean. “People of the Opiate: Burma’s Dictatorship of Drugs.” *The Nation* 263, no. 20 (December 16, 1996): 11-15.

Bryce, J. “Burma: The Country and People.” *Proceedings of the Royal Geographical Society and Monthly Record of Geography* 8, no. 8 (New Monthly Series August 1886): 481-501.

Byrd, William, and Olivier Jonglez. “Prices and Market Interactions.” *The Opium Economy*. World Bank. http://siteresources.worldbank.org/SOUTHASIAEXT/Resources/Publications/448813-1164651372704/UNDC_Ch5.pdf (accessed June 1, 2012).

Cialdini, Robert, Carl Kallgren and Raymond Reno. “A Focus Theory of Normative Conduct: When Norms Do and Do not Affect Behavior.” *Personality and Social Psychology Bulletin* 26, no. 8 (October 2000): 1002-1012.

Chandra, Siddharth. “Economic Histories of the Opium Trade.” In *Economic History Encyclopedia*, edited by Robert Whaples. Economic History Association, February 10, 2008. http://eh.net/encyclopedia/article/chandra.opium (accessed June 1, 2012).

Chouvy, Pierre-Arnaud. “Afghanistan’s Opium Production in Perspective.” *China and Eurasia Forum Quarterly* 4, no. 1 (2006): 21-24.

Collier, Paul. “Natural Resources, Development and Conflict: Channels of Causation and Policy Interventions.” World Bank. April 28, 2003.

———. “The Political Economy of Natural Resources.” *Social Research* 77, no. 4 (Winter 2010): 1112-1117.

Collier, Paul, and Anke Hoeffler. “On Economic Causes of Civil War.” *Oxford Economic Papers* 50, no.4 (January 1998): 563-573.

Collier, Paul, Anke Hoeffler, and Dominic Rohner. “Beyond Greed and Grievance: Feasibility and Civil War.” *Oxford Economic Papers* 61, no. 1 (2009): 1-27.

Conceição, Pedro, and Romina Bandura. “Measuring Subjective Wellbeing: A Summary Review of the Literature.” Office of Development Studies, United Nations Development Programme (UNDP), 2008.

Crossette, Barbara. “Taliban’s Ban on Poppy A Success, U.S. Aides Say.” *The New York Times*, May 20, 2001, World section, Online edition. http://www.nytimes.com/2001/05/20/world/taliban-s-ban-on-poppy-a-success-us-aides-say.html (accessed June 1, 2012).

Draper, Robert. “Opium Wars: A key step to securing peace will be to wean Afghan farmers off growing poppies.” *National Geographic Magazine,* February 2011.

Emery, James. “Once among the United States’ loyal allies, today the Hmong tribesman of Laos are patriots without a country.” *Vietnam*, February 2001.

———. “Thailand’s other weapons against drugs.” *Asia Times Online*: *Southeast Asia*, March 6, 2003. http://www.atimes.com/atimes/Southeast_Asia/EC06Ae05.html (accessed June 1, 2012).

Erinc, Sirri, and Necdet Tuncdilek. “The Agricultural Regions of Turkey.” *Geographical Review* 42, no. 2 (April 1952): 179-203.

Fleurbaey, Marc. “Beyond GDP: Is There Progress in the Measurement of Individual Well-being and Social Welfare?” *Journal of Economic Literature* 47, no. 4 (December 2009). 1029-75.

Genocide Watch. “Countries at Risk of Genocide, Politicide, or Mass Atrocities: 2012.” http://www.genocidewatch.org/alerts/countriesatrisk2012.html (accessed June 1, 2012).

Geopolitical Review. “Pro-Democracy Activist’s House Arrest Extended.” November 30, 2005. http://www.geopoliticalreview.com/archives/cat_southeast_asia.php (accessed June 1, 2012).

Gillogly, Kathleen. “Opium, power, people: anthropological understandings of an opium interdiction project in Thailand.” *Contemporary Drug Problems* 35, no.4 (Winter 2008): 679-715.

Gingeras, Ryan. “In the Hunt for the ‘Sultans of Smack:’ Dope, Gangsters, and the Construction of the Turkish Deep State.” *The Middle East Journal* 65, no. 3 (Summer 2011): 426-441.

Global Exchange. “Why GDP is an Inappropriate Measure of Economic Health.” In *Global Exchange*. http://www.globalexchange.org/resources/econ101/gdp (accessed June 1, 2012).

Hmong Studies. *Hmong 2000 Census Publication: Data & Analysis*. Hmong National Development, Inc. & Hmong Cultural and Resource Center, 2000. http://www.hmongstudies.org/HmongCensusReport.pdf (accessed June 1, 2012).

Hughes, Richard, and Fred Ward. “Heaven and Hell: The quest for jade in Upper Burma.” *Asia Diamonds* 1, no. 2 (September-October 1997): 42-53.

Institute of Southeast Asian Studies. “The Junta, Ethnic Minorities, and Regional Relationships.” *Southeast Asian Affairs* (2001).

Irrawaddy Publishing Group. “List of Cease-fire Agreements with the Junta.” *The Irrawaddy*, January 1, 2004. http://www2.irrawaddy.org/print_article.php?art_id=444 (accessed June 1, 2012).

Jagan, Larry. “Opium Production Rending the Fabric of Ethnic Communities.” *Mizzima News: Inside Burma*, January 28, 2010, Online edition.

Jensen, Derrick. “Tricks of the Trade: Alfred McCoy on How the CIA Got Involved in Global Drug Trafficking.” *The Sun Journal*, May 2003.

Jennings, John. “The Forgotten Plague: Opium and Narcotics in Korea under Japanese Rule 1910-1945.” *Modern Asian Studies* 29, no. 4 (October 1995): 795-815.

Johnson, Thomas, and M. Chris Mason. “Understanding the Taliban and Insurgency in Afghanistan.” Foreign Policy Research Institute (Winter 2007). http://www.nps.edu/programs/ccs/docs/pubs/understanding%20the%20taliban%20and%20insurgency%20in%20afghanistan.pdf (accessed June 1, 2012).

Jolly, David. “GDP seen as an inadequate measure of economic health.” *New York Times*. September 14, 2009, Global Business section, Paris edition.

Krain, Matthew. “State-Sponsored Mass Murder: The Onset and Severity of Genocides and Politicides.” *Journal of Conflict Resolution* 41, no. 3 (June 1997): 331-360.

Krasner, Stephen. “Sharing Sovereignty: New Institutions for Collapsed and Failing States.” *International Security* 29, no. 2 (Autumn 2004): 85-120.

Kundi, Mansoor. “Pakistan an immigrant country: Afghan migration and its impact on Balochistan.” The Institute of Strategic Studies, Islamabad. http://www.issi.org.pk/old-site/ss_Detail.php?dataId=343 (accessed May 21, 2012).

Lansner, Thomas. “Backpacking Burma: A Brief History of Burma.” *Burma Project*. Open Society Institute. http://journalism.berkeley.edu/projects/burma/history.html (accessed June 1, 2012.)

Levy, Jonathan. “Case Study: The Akha & Modernization: A Quasi Legal Perspective.” *Flame*. The Law Office of Thomas Dewey Easton and Jonathan H. Levy. http://www.fantompowa.net/Flame/levy_akha.htm (accessed June 1, 2012).

Macan-Markar, Marwaan. “Ethnic Women Expose Opium Fields in Junta Strongholds.” *IPS News*, January 31, 2010, Burma section, Bangkok edition.

Marshall, Monty G., and Benjamin R. Cole. *Global Report 2011: Conflict, Governance, and State Fragility*. Center for Systemic Peace. 2011.

Matthews, Robert. “Military Intervention and Syria.” *Open Security Contemporary Conflicts*. May 14, 2012. http://www.opendemocracy.net/robert-matthews/military-intervention-and-syria (accessed June 1, 2012).

McClelland, Mac. “For Us, Surrender is Out of the Question: Living With the Crazy, Fearless Young Men Who Risk Life and Limb to Document Burma’s Genocide.” *Mother Jones* (March-April 2010). http://booksinternationale.info/pipermail/freshink/2010-March/003565.html (accessed June 7, 2012).

McGeown, Kate. “Burma’s confusing capital move.” *BBC News*, November 8, 2005, Asia-Pacific section, Online edition. http://news.bbc.co.uk/2/hi/4416960.stm (accessed June 1, 2012).

Miles, Douglas. “The Violent Suppression of Opium Cultivation.” Paper presented at the 2007 Australian Anthropology Society Annual Conference. Canberra, Australia. Australian National University. 2007.

Mizzima. “The Internet in Burma (1998-2009).” *Mizzima News*, December 24, 2009, Online edition. http://www.mizzima.com/research/3202-the-internet-in-burma-1998-2009-.html (accessed June 1, 2012).

Myanmar Marketing Research and Development Co. Ltd. (MMRD). “Private Sector and Humanitarian Relief in Myanmar.” MMRD, October 2011. http://www.burmalibrary.org/docs13/Private_Sector+Humanitarian_Response.pdf (accessed June 1, 2012).

Olsson, Ola, and Heather Congdon-Fors. “The Prize of Predation.” *Journal of Peace Research* (March 2004): 327-330.

Otis, John. “Paez Indians wage a struggle for survival/Colombian indigenous group seeks to solve woes peacefully.” *Houston Chronicle*, September 9, 2001, South American Bureau section, Online edition. http://www.chron.com/news/nation-world/article/Paez-Indians-wage-a-struggle-for-survival-2041072.php (accessed June 1, 2012).

Paddock, Richard. “Abrupt relocation of Burma capital linked to astrology.” *LA Times* and *The Boston Globe*, January 1, 2006. http://www.boston.com/news/world/asia/articles/2006/01/01/abrupt_relocation_of_burma_capital_linked_to_astrology/?page=full (accessed June 1, 2012).

Pattisson, Pete. “On the Run with the Karen People Forced to Flee Burma's Genocide.” In *The Independent*, January 16, 2007, Asia section, Online edition.

Peace Direct. “Pakistan: Conflict Profile.” *Insight on Conflict*, 2012. http://www.insightonconflict.org/conflicts/pakistan/conflict-profile/ (accessed June 1, 2012).

Pobzeb, Vang. “White Paper on Genocide in Laos.” Eau Claire, WI. Laos Human Rights Council. July 28, 1997.

Poroy, Ibrahim. “Expansion of Opium Production in Turkey and the State Monopoly of 1828-1839.” *International Journal of Middle East Studies* 13, no. 2 (May 1981): 191-211.

Poveter, David. “Burma Slips Through the Cracks.” *War Studies*. The Pica Project. King’s College, London. 2009. http://www.thepicaproject.org/?page_id=779 (accessed June 1, 2012).

Quig, Brian. “Khun Sa Drug Deal No Surprise Says Karen Leader.” *Intelligence Connection*, 1996. http://www.apfn.net/dcia/khunsa.html (accessed June 1, 2012).

Rashid, Ahmed. “Taliban Killed 4000 in Ethnic Cleansing Drive.” Electronic Telegraph. *Association of Afghan Blog Writers* Issue 1203, September 10, 1998.

Reuter, Paul. “Can Production and Trafficking of Illicit Drugs be Reduced or Merely Shifted?”*Policy Research Paper 4564*. World Bank Developmental Research Group. March 2008.

Redmon, Larry. “A Structural Analysis of the Ethnic Insurgency in Burma.” *Special Warfare* 17, no. 2 (December 2004): 30-43.

Rummel, R. “Genocide.” http://www.hawaii.edu/powerkills/GENOCIDE.ENCY.HTM (accessed June 1, 2012).

Saw, Lu. “The Bondage of Opium: The Agony of the Wa People, A Proposal and A Plea.” Center for the Public Domain: Raleigh, NC. April 9, 2012. http://www.ibiblio.org/obl/docs/bondage.htm (accessed June 1, 2012).

Scheltema, J. “The Opium Question.” *American Journal of Sociology* 16, no. 2 (September 1910): 213-235.

Schloenhardt, Andreas. “Transnational Organised Crime and the International Criminal Court Developments and Debates.” *University of Queensland Law Journal* 24, no. 1 (2005): 93-122.

Schoen, John W. “GDP data overstates economy’s health.” *MSNBC News*, January 29, 2010, Business Section, Online edition. http://business.new.newsvine.com/_news/2010/01/29/3829079-gdp-data-overstates-economyshealth?commentId=12076021 (accessed June 1, 2012).

Sevenier, Gaelle. “Massacres of Indigenous Peoples in Colombia.” *Radio Feminista*, June 21, 2004, South America edition. http://www.radiofeminista.net/junio04/notas/colmassacre-ing.htm (accessed June 1, 2012).

Sisodia, Rajeshree. “Jade Trade in Myanmar Thrives on Exploitation, Rights Abuses.” *The National*, September 30, 2008, UAE edition.

Shostak, Frank. “What is up with the GDP?” *Mises Daily*. Ludwig von Mises Institute. August 23, 2001. http://mises.org/daily/770 (accessed June 1, 2012).

Special to the New York Times. “Rebels in Burma Say Rangoon Uses Herbicide Against Them.” *New York Times*, November 30, 1986, East Coast Late Edition.

Stanton, John. “A Fantastic Tale: Turkey, Drugs, Faustian Alliances & Sibel Edmonds.” June 28, 2004. http://cryptome.org/turkey-tale.htm (accessed June 1, 2012).

Streatfeild, Dominic. “FARC guerrilla #1: Simon Trinidad FARC Spokesman at the Negotiating Table.” November 20, 2000. http://www.dominicstreatfeild.com/2010/11/26/interview-with-simon-trinidad-farc-spokesman/ (accessed June 1, 2012).

Thackerabaw, David, and Roland Watson. “The Karen People of Burma and the Karen National Union.” *Dictator Watch*, November 2003.

The Economist. “Failed States: Fixing a broken world.” January 29, 2009.

The Round Table Process. “Opium and Laos, a hard habit to kick. Travel, Food and Other Things Connected to Laos.” November 25, 2010. http://www.rtm.org.la/documents/SWG/National%20Drug%20Control%20Masterplan.pdf (accessed June 1, 2012).

Thompson, Mark. “Pacific Asia after ‘Asian Values’: Authoritarianism, Democracy, and ‘Good Governance’.” *Third World Quarterly* 25, no. 6 (2004): 1079-1095. http://www.jstor.org/stable/3993752 (accessed June 1. 2012).

United States Institute for Peace. “Genocide Prevention Task Force: Providing a Blueprint for U.S. Policy Makers.” 2011. http://www.usip.org/programs/initiatives/genocide-prevention-task-force (accessed June 1, 2012).

Walker, William. “Drug Trafficking in Asia.” *Journal of Interamerican Studies and World Affairs* 34, no. 3 (Autumn 1992): 201-216.

Win, U. “1998 Christie Island Massacre. War Crimes in Burma/Myanmar.” September 15, 2011. http://warcrimes-burmamyanmar.blogspot.com/2011/09/1998-christie-island-massacres.html (accessed June 1, 2012).

Government Documents

Cramer, Christopher. “Inequality and Conflict: A Review of an Age-Old Concern.” UN Research Institute For Social Development, Identities, Conflict and Cohesion Programme Paper Number 11. October 2005.

Central Intelligence Agency. The World Factbook. “Field Listing: Illicit Drugs.” April 9, 2012. https://www.cia.gov/library/publications/rss-updates/WFB-april-13-2012.html (accessed June 7, 2012).

Department of Defense. *Laos Country Handbook*, DOD-2630-LA-017-00. Washington, DC: U.S. Department of Defense Intelligence Production Program, December 2000.

Immigration and Refugee Board of Canada. “Myanmar: The All Burma Student Union (ABSU) (January 1998 to January 1999).” BUR31080.E. January 1, 1999. http://www.unhcr.org/refworld/docid/3ae6abab80.html (accessed May 15, 2012).

Lao National Commission on Drug Control and Supervision. *National Drug Control Master Plan: A Five Year Strategy to Address the Illicit Drug Control Problem in the Lao PDR*. UNODC. 2009. http://www.rtm.org.la/documents/SWG/National%20Drug%20Control%20Masterplan.pdf (accessed June 1, 2012).

Lee, Serge, Mark Pfeifer, Rev. Kou Seying, Richard Todd, Michael Grover, Halee Vang, Chia Youyee Vang, Zha Blong Ziong, and Kou Yang. “Hmong 2000 Census Publication: Data & Analysis.” Hmong National Development, Inc. & Hmong Cultural Resource Center. Washington, DC, 2000. http://www.hmongstudies.org/HmongCensusReport.pdf (accessed June 1, 2012).

Mansfield, David. “Assessing Supply-side Policy and Practice: Eradication and Alternative Development.” Global Commission on Drug Policies, January 2011.

Mansfield, David, and Adam Pain. “Opium Poppy Eradication: How to raise risk when there is nothing to lose?” Afghanistan Research and Evaluation Unit, August 2006.

Marine Corps Intelligence Activity. *Burma Country Handbook*. U.S. Department of Defense Intelligence Production Program. https://www.opensource.gov/portal/server.pt/gateway/PTARGS_0_0_200_203_0_43/content/Display/25983577/Burma%20Country%20Handbook.pdf (accessed June 1, 2012).

Niksch, Larry, and Martin Weiss. "Burma: Economic Sanctions." Congressional Research Service 7-5700, August 3, 2009. www.crs.gov RS22737 (accessed June 1, 2012).

Renard, Ronald. "Mainstreaming Alternative Development in Thailand, Lao PDR and Myanmar: A Process of Learning." UNODC Global Partnership on Alternative Development (GLO/I44). http://www.unodc.org/documents/laopdr/COLAO/Mainstreaming_AD_web.pdf (accessed June 1, 2012).

United Nations General Assembly. Article 2: *United Nations Convention on the Prevention and Punishment of the Crime of Genocide*. New York, NY. http://untreaty.un.org/cod/avl/ha/cppcg/cppcg.html (accessed June 1, 2012).

———. Article 54: *Protocol Additional to the Geneva Conventions of 12 August 1949, and relating to the Protection of Victims of International Armed Conflicts (Protocol I)*. New York, NY. June 8, 1977.

———. *Rome Statute of the International Criminal Court (last amended January 2002)*. A/CONF. 183/9. July 17, 1998. http://www.unhcr.org/refworld/docid/3ae6b3a84.html (accessed May 20, 2012)/

United Nations Office for the Coordination of Humanitarian Affairs. "Bitter-Sweet Harvest: Afghanistan's New War-Afghanistan: Chronology of Opium Throughout History." *IRIN Humanitarian News and Analysis: In-Depth*. Nairobi, Kenya. August 2, 2004.

United Nations Office of the Special Advisor for the Prevention of Genocide. *Preventing Genocide*, 2012. http://www.un.org/en/preventgenocide/adviser/genocide_prevention.shtml (accessed June 1, 2012).

United Nations Office on Drug Control and Crime Prevention. "Global Illicit Drug Trends." Studies on Drugs and Crime. United Nations Sales No. E.99.XI.16. 1999.

United Nations Office on Drugs and Crime. Data and Analysis. www.unodc.org/unodc/en/data-and-analysis/WDR.html?ref=menuside (accessed June 1, 2012).

———.UNODC Illicit Crop Monitoring Program Index, http://www.unodc.org/unodc/en/crop-monitoring/index.html (accessed June 1, 2012).

———. “Afghanistan Opium Poppy Survey 2000.” UNODC Illicit Crop Monitoring Program. December 29, 2000. http://www.unodc.org/unodc/en/crop-monitoring/index.html (accessed June 1, 2012).

———. “Afghanistan Opium Poppy Survey 2001.” UNODC Illicit Crop Monitoring Program. October 16, 2001. http://www.unodc.org/unodc/en/crop-monitoring/index.html (accessed June 1, 2012).

———. “Afghanistan Opium Survey 2002.” UNODC Illicit Crop Monitoring Program. October 1, 2002. http://www.unodc.org/unodc/en/crop-monitoring/index.html (accessed June 1, 2012).

———. “Afghanistan Opium Survey 2003.” UNODC Illicit Crop Monitoring Program. October 1, 2003. http://www.unodc.org/unodc/en/crop-monitoring/index.html (accessed June 1, 2012).

———. “Afghanistan Opium Survey 2004.” UNODC Illicit Crop Monitoring Program. November 1, 2004. http://www.unodc.org/unodc/en/crop-monitoring/index.html (accessed June 1, 2012).

———. “Afghanistan Opium Survey 2005.” UNODC Illicit Crop Monitoring Program. March 3, 2005. http://www.unodc.org/unodc/en/crop-monitoring/index.html (accessed June 1, 2012).

———. “Afghanistan Opium Survey—Oct 2006.” UNODC Illicit Crop Monitoring Program. October 1, 2006. http://www.unodc.org/unodc/en/crop-monitoring/index.html (accessed June 1, 2012).

———. “Afghanistan Opium Survey—Oct 2007.” UNODC Illicit Crop Monitoring Program. October 16, 2007. http://www.unodc.org/unodc/en/crop-monitoring/index.html (accessed June 1, 2012).

———. “Afghanistan Opium Survey—Nov 2008.” UNODC Illicit Crop Monitoring Program. November 27, 2008. http://www.unodc.org/unodc/en/crop-monitoring/index.html (accessed June 1, 2012).

———. “Afghanistan Opium Survey—Dec 2009.” UNODC Illicit Crop Monitoring Program. December 17, 2009. http://www.unodc.org/unodc/en/crop-monitoring/index.html (accessed June 1, 2012).

———. “Afghanistan—Opium Survey 2010.” UNODC Illicit Crop Monitoring Program. January 2, 2011. http://www.unodc.org/unodc/en/crop-monitoring/index.html (accessed June 1, 2012).

——— “Colombia Coca Survey—Sept 2003.” UNODC Illicit Crop Monitoring Program. September 25, 2003. http://www.unodc.org/unodc/en/crop-monitoring/index.html (accessed June 1, 2012).

——— “Colombia Coca Survey—June 2004.” UNODC Illicit Crop Monitoring Program. June 18, 2004. http://www.unodc.org/unodc/en/crop-monitoring/index.html (accessed June 1, 2012).

——— “Colombia Coca Cultivation Survey—June 2005.” UNODC Illicit Crop Monitoring Program. June 16, 2005 http://www.unodc.org/unodc/en/crop-monitoring/index.html (accessed June 1, 2012).

——— “Colombia Coca Cultivation Survey—June 2006.” UNODC Illicit Crop Monitoring Program. June 19, 2006. http://www.unodc.org/unodc/en/crop-monitoring/index.html (accessed June 1, 2012).

——— “Colombia Coca Cultivation Survey—June 2007.” UNODC Illicit Crop Monitoring Program. June 19, 2007. http://www.unodc.org/unodc/en/crop-monitoring/index.html (accessed June 1, 2012).

——— “Colombia Coca Cultivation Survey—June 2009.” UNODC Illicit Crop Monitoring Program. June 19, 2009. http://www.unodc.org/unodc/en/crop-monitoring/index.html (accessed June 1, 2012).

———. “Laos Opium Survey—June 2002.” UNODC Illicit Crop Monitoring Program. June 5, 2002. http://www.unodc.org/unodc/en/crop-monitoring/index.html (accessed June 1, 2012).

———. “Laos Opium Survey—June 2003.” UNODC Illicit Crop Monitoring Program. June 5, 2003. http://www.unodc.org/unodc/en/crop-monitoring/index.html (accessed June 1, 2012).

———. “Laos Opium Survey—June 2004.” UNODC Illicit Crop Monitoring Program. July 1, 2004. http://www.unodc.org/unodc/en/crop-monitoring/index.html (accessed June 1, 2012).

———. “Laos Opium Survey—June 2005.” UNODC Illicit Crop Monitoring Program. June 8, 2005. http://www.unodc.org/unodc/en/crop-monitoring/index.html (accessed June 1, 2012).

———. “Myanmar Opium Survey—June 2003.” UNODC Illicit Crop Monitoring Program. June 12, 2003. http://www.unodc.org/unodc/en/crop-monitoring/index.html (accessed June 1, 2012).

———. “Myanmar Opium Survey—Nov 2005.” UNODC Illicit Crop Monitoring Program. November 14, 2005. http://www.unodc.org/unodc/en/crop-monitoring/index.html (accessed June 1, 2012).

———. “Opium Poppy Cultivation in the Golden Triangle—October 2006.” UNODC Illicit Crop Monitoring Program. October 5, 2006. http://www.unodc.org/unodc/en/crop-monitoring/index.html (accessed June 1, 2012).

———. “Opium poppy cultivation in South-East Asia—Oct 2007.” UNODC Illicit Crop Monitoring Program. October 10, 2007. http://www.unodc.org/unodc/en/crop-monitoring/index.html (accessed June 1, 2012).

———. “Opium poppy cultivation in South-East Asia—Dec 2008.” UNODC Illicit Crop Monitoring Program. February 2,, 2009. http://www.unodc.org/unodc/en/crop-monitoring/index.html (accessed June 1, 2012).

———. “Opium poppy cultivation in South-East Asia—Dec 2009.” UNODC Illicit Crop Monitoring Program. December 14, 2009. http://www.unodc.org/unodc/en/crop-monitoring/index.html (accessed June 1, 2012).

———. “South_East Asia—Opium Survey 2010—Lao PDR, Myanmar.” UNODC Illicit Crop Monitoring Program. December 13, 2010. http://www.unodc.org/unodc/en/crop-monitoring/index.html (accessed June 1, 2012).

———. “World Drug Report 2011.” United Nations Office on Drugs and Crime, United Nations Publication, Sales No. E.11.XI.10. Vienna. 2012.

United Nations Office on Drugs and Crime. Executive Director speech before the UN General Assembly, October 12, 2001. http://www.unodc.org/unodc/en/speech_2001-10-12_1.html (accessed June 1, 2012).

United Nations Statistics Division. National Accounts Main Aggregates Database. http://data.un.org/DataMartInfo.aspx#SNAAMA (accessed June 1, 2012).

———. Methodology. http://unstats.un.org/unsd/snaama/methodology.pdf (accessed June 1, 2012).

———. Data and Analysis. http://www.unodc.org/unodc/en/data-and-analysis/statistics/index.html (accessed June 1, 2012).

United States Department of State. “South East Asia and the Pacific: Burma.” *International Narcotics Strategy Control Report 1996*. March 1997. http://www.state.gov/www/global/narcotics_law/1996_narc_report/index.html (accessed June 1, 2012).

United States Department of State Bureau for International Narcotics and Law Enforcement Affairs. “International Narcotics Control Strategy Report 1995.” March 1995. http://dosfan.lib.uic.edu/ERC/law/INC/index.html (accessed June 1, 2012).

United States Embassy, Rangoon. *Country Economic and Trade/Commercial Guide: Burma*. 1996.

White House., Office of the Press Secretary., Presidential Study Directive on Mass Atrocities, Presidential Study Directive/PSD-10. August 4, 2011.

World Bank Conflict Prevention and Reconstruction Unit. “Conflict Risk Screening Guide.” *The Conflict Analysis Framework*. October 2002. http://siteresources.worldbank.org/INTCPR/214578111751313696/20480168/CPR+5+final+legal.pdf (accessed June 1, 2012).

World Bank. “Data.” World Development Indicators. http://www.worldbank.org/depweb/english/beyond/global/glossary.html (accessed June 1, 2012).

Wyler, Liana. “CRS Report for Congress: Burma and Transnational Crime.” Congressional Research Service, August 21, 2008.

Non-Governmental Data Sources

Eck, Kristine, and Lisa Hultman. “Violence Against Civilians in War.” *Journal of Peace Research* 44, no. 2 (2007).

Gleditsch, Nils Petter, Peter Wallensteen, Mikael Eriksson, Margareta Sollenberg, and Håvard Strand. “Armed Conflict 1946-2001: A New Dataset.” *Journal of Peace Research* 39, no. 5 (2002).

Political Instability Task Force. Polity IV Country Report 2010: Afghanistan, Center for Systemic Peace. 2010. http://www.systemicpeace.org/polity/Afghanistan2010.pdf (accessed June 1, 2012).

———. Polity IV Country Report 2010: Myanmar (Burma), Center for Systemic Peace. 2010. http://www.systemicpeace.org/polity/Myanmar2010.pdf (accessed June 1, 2012).

Stockholm International Peace Research Institute. News Archive. http://www.sipri.org/media/news-archive (accessed June 1, 2012).

Sundberg, Ralph. “Revisiting One-sided Violence–A Global and Regional Analysis.” In *States in Armed Conflict*. Edited by Harbom, Lotta and Ralph Sundberg. Uppsala, Sweden: Universitetstryckeriet. 2009.

Sundberg, Ralph, Kristine Eck, and Joakim Kreutz. “Introducing the UCDP Non-State Conflict Dataset.” *Journal of Peace Research* 49 (March 2012): 351-362.

Themnér, Lotta, and Peter Wallensteen. “Armed Conflict, 1946-2010.” *Journal of Peace Research* 48, no. 4 (2011).

UCDP Conflict Encyclopedia Definitions. Uppsala Conflict Data Program, Department of Peace and Conflict Research, Uppsala Universitet. http://www.pcr.uu.se/research/ucdp/definitions/ (accessed June 1, 2012).

UCDP/PRIO Armed Conflict Dataset Version 4-2011. Uppsala Conflict Data Program, Department of Peace and Conflict Research, Uppsala Universitet. http://www.pcr.uu.se/research/ucdp/datasets/ucdp_prio_armed_conflict_dataset/ (accessed June 1, 2012).

UCDP/PRIO Armed Conflict Dataset Codebook Version 4-2011. Uppsala Conflict Data Program, Department of Peace and Conflict Research, Uppsala Universitet. http://www.pcr.uu.se/digitalAssets/63/63324_Codebook_UCDP_PRIO_Armed_Conflict_Dataset_v4_2011.pdf (accessed June 1, 2012).

UCDP/PRIO Non-State Conflict Dataset Version 2.3-2011. Uppsala Conflict Data Program, Department of Peace and Conflict Research, Uppsala Universitet. http://www.pcr.uu.se/research/ucdp/datasets/ucdp_non-state_conflict_dataset_/ (accessed June 1, 2012).

UCDP/PRIO Non-State Conflict Dataset Codebok Version 2.3-2011. Uppsala Conflict Data Program, Department of Peace and Conflict Research, Uppsala Universitet. http://www.pcr.uu.se/digitalAssets/111/111220_ucdp-non-state-conflict-dataset-codebook-v2-3_2011.pdf (accessed June 1, 2012).

UCDP/PRIO One-Sided Conflict Dataset Version 1.3-2011. Uppsala Conflict Data Program, Department of Peace and Conflict Research, Uppsala Universitet. http://www.pcr.uu.se/research/ucdp/datasets/ucdp_one-sided_violence_dataset/ (accessed June 1, 2012).

UCDP/PRIO One-Sided Conflict Dataset Codebook Version 1.3-2011. Uppsala Conflict Data Program, Department of Peace and Conflict Research, Uppsala Universitet. September 4, 2008. http://www.pcr.uu.se/digitalAssets/55/55080_UCDP_One-sided_violence_Dataset_Codebook_v1.3.pdf (accessed June 1, 2012).

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